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## Final Report

### Documentation In Support of Biennial Protectiveness Certification for Classification Exception Area Groundwater

JIS Landfill Superfund Site  
South Brunswick, New Jersey

Prepared for: JIS Performing Parties Group

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## Section 1.0 Introduction

On behalf of the JIS Performing Parties Group (JIS Group), Conestoga-Rovers & Associates (CRA) has prepared this document to provide the New Jersey Department of Environmental Protection (NJDEP) with the updated information necessary to confirm the current limits of the Classification Exception Area (CEA) established for the Remedial Action for groundwater at the JIS Landfill Superfund Site (Site). The JIS Landfill is located in South Brunswick Township, Middlesex County, New Jersey as shown on Figure 1. The JIS Landfill is owned and operated by Jones Industrial Services Co. Remedial work at the Site has been performed pursuant to Administrative Consent Orders dated June 17, 1997 and October 15, 2004 and more recently, the September 3, 2010 Administrative Order issued by USEPA. The NJDEP Site Remediation Program Interest Number is 010911. Future work at the Site will be performed in accordance with the Remedial Action Work Plan (RAWP) that was attached to the September 3, 2010 Administrative Order.

The purpose of a CEA is to identify the area of an aquifer that is currently impacted above the applicable NJDEP Ground Water Quality Standards (NJ GWQS) and to provide a mechanism to protect potential groundwater users and inhabitants of nearby buildings. The documentation for this CEA has been developed in accordance with the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) N.J.A.C. 7:26C-7.3, 7.5(c)2 and 7.5(d)2, Technical Requirements for Site Remediation (TRSR) N.J.A.C 7:26E-4.3(a)7 and 4.9(a)7, Groundwater Quality Standards N.J.A.C. 7:9-1.6 and 1.9(b), N.J.A.C. 7:26E-8.3, and the NJDEP Final Guidance on Designation of Classification Exception Areas, 1998.

## Section 2.0 Site Background

### 2.1 Land Use Description

The JIS Landfill is located in South Brunswick Township, Middlesex County, New Jersey on Lot 9.06, Block 17.010. The JIS property is bordered to the west by the New Jersey Turnpike and to the east by Cranbury South River Road. The north side of the property borders a commercial warehouse and a residence. The south side of the property adjoins a commercial warehouse.

The JIS property is approximately 26 acres in size. The western half of the property is an inactive landfill that began operation in 1956. A portion of the property also operated as a borrow pit resulting in an excavation that was over 30 feet deep. The western half of the pit was used as the landfill area. The landfill received solid and liquid wastes that resulted in the release of chemicals into the groundwater flow regime. The landfill was closed in the early

1980s. In 2000, a cap, consisting of soil and a polyethylene liner was constructed by the JIS Group as part of the final remedial action for the JIS Landfill.

The eastern portion of the property currently operates as a recycling facility, receiving landscape refuse and soils, wood waste, asphalt, concrete, and cinder blocks. These materials are reportedly processed and removed from the property.

## **2.2 Hydrogeology**

The hydrogeologic conditions at the Site have been extensively described in the Remedial Investigation Addendum Report for the Secondary Plume Area dated July 2009. The following is a brief summary of the conditions.

The Site lies within the outcrop of the Old Bridge Aquifer. The relatively flat and poorly drained outcrop of the Old Bridge Aquifer to the northwest and northeast of the Site promotes precipitation infiltration and recharge to the water table. At locations within the study area where the Old Bridge Aquifer is not exposed at ground surface, it is overlain by the Pennsauken Formation, which is unsaturated in the vicinity of the Site. The Pennsauken Formation, being coarse in nature, allows precipitation to readily infiltrate to underlying aquifers which tends to increase the recharge to the Old Bridge Aquifer (approximately 20 inches/year according to Barksdale et al., 1943).

The Old Bridge Aquifer is underlain by the Woodbridge Clay layer which is a low-permeability aquitard unit that defines the base of the aquifer. Beneath the JIS property, the aquifer is on the order of 100 feet thick with flow velocity being measured to be about 1 foot per day.

Groundwater flow generally occurs from west to east. Immediately downgradient from the JIS property, groundwater flow is directed to the east-southeast approximately aligned with Docks Corner Road. Further downgradient from the JIS property, near the Manalapan Brook Tributary, groundwater flow is oriented more easterly as shown on Figure 1.

## **2.3 Groundwater Quality**

The NJDEP began an evaluation of the quality of the groundwater in the vicinity of the JIS Landfill in the late 1980s and early 1990s, the results of which were documented in the Remedial Investigation Report (prepared by B&V Waste Science and Technology Corp.) in 1993. That report noted the existence of a chemical plume migrating from the Landfill that could essentially be identified by tracking the migration of a single Site-specific compound: benzene. The Remedial Investigation Report noted that benzene, along with a number of other parameters, were present at elevated concentrations in the groundwater flow regime beneath

and in the immediate downgradient area adjacent to the Landfill. Upon entering the groundwater flow regime, the chemicals migrated in a southeasterly direction carried by the prevailing groundwater gradient. Groundwater samples collected from monitoring wells more than 2,000 feet downgradient of the Landfill indicated that, as the chemicals migrated with the groundwater flow, the chemicals migrated to the lowest portion of the aquifer and the concentrations generally decreased as distance from the Landfill increased.

Based upon this understanding of the groundwater conditions, NJDEP approved a Feasibility Study Report for the Landfill (also prepared by B&V) in 1994 and issued a Record of Decision (ROD) in 1995 selecting a final remedy. The ROD approached the groundwater plume as comprising of two components. The first included the area nearest the Landfill where the groundwater concentrations were highest. This area was designated the Primary Plume for which the ROD selected active remediation using pump and treat technologies. The second area begins more than 5,000 feet downgradient from the Landfill and extends beyond Rhode Hall Road and into the Manalapan Brook area. This second area was designated the Secondary Plume. The ROD designated the Secondary Plume as a natural remediation area where natural attenuation was expected to be adequate to address the lower level concentrations (<894 ppb) of chemicals present.

During the pre-design investigations, a number of additional monitoring wells were installed in the Primary and Secondary Plume Areas. The results from these wells have been used to refine the conditions first characterized in the 1990s and to track the chemical concentration trends that have occurred since that time. The most recent data that have been collected and reported upon confirm that the overall dimensions of the plume(s) have been diminishing since about 2000 and the concentrations of the Contaminants of Concern (COCs) have been decreasing.

In 2008 and 2009, the JIS Group installed additional wells and collected additional samples in the Secondary Plume area with the purpose of specifically defining the limits of the area of impacted groundwater. The results of this sampling were reported to the NJDEP in the report entitled "Remedial Investigation – Secondary Plume Area" dated June 2008 and the "Remedial Investigation Addendum Report" of July 2009. Based on the results of these additional investigations, the final limits of the area of impacted groundwater were thoroughly delineated. The delineation included the limits of impacted groundwater from the JIS Landfill as well as from additional potential source areas within the investigated area. A Classification Exception Area (CEA) fact sheet was submitted to the NJDEP in 2011 and the CEA was approved May 6, 2013. A copy of the approval letter is included in Appendix A. All of the available groundwater data collected from the JIS Site investigation have been compiled and are presented in the table

included in Appendix B. Due to the extensive historical groundwater sampling activities, the table is contained on a CD included in the appendix.

## **2.4 Receptor Evaluation**

The Remedial Investigation and Risk Assessments completed in 1993 identified that the primary risk of exposure to the Landfill chemicals was through the use of groundwater that could be accessed by private wells. In response to this exposure potential, the JIS Group conducted private water well surveys in the vicinity of and downgradient of the JIS Landfill in 1999 and again further downgradient in 2001. The surveys identified that there were no private wells within the downgradient Primary or Secondary Plume areas. In 2003, as an additional precaution, private wells supplying water to residents along Old Forge Road, Docks Corner Road, Sherman Avenue, Pergola Street, and McKnight Street were removed from service and the residents were connected to the municipal water supply. This work was performed by the JIS Group as reported in the "Domestic Water Supply Study on Old Forge Road" dated 2004. This precautionary measure further ensures that no exposure to potentially impacted groundwater can occur.

In 2008 and 2009, CRA completed a Baseline Health Risk Assessment for the Secondary Plume Area. The results of this assessment confirmed that there is no adverse impact to human health or the environment as a result of impacted groundwater from the JIS Landfill entering the Secondary Plume Area. There is only a hypothetical future exposure condition that could exist if the groundwater is extracted for domestic use. The previous remedial actions (provision of public water supply) have eliminated the possibility of such an exposure occurring.

In 2009 a radius well search was requested from the NJDEP Bureau of Water Allocation. Review of the records identified a total of 92 permits and/or records for domestic or irrigation wells were identified to be present from the Water Allocation data. Of the 92 wells described on the permits, 29 were located within 1,000 feet of the JIS plume(s) and 14 were located more than 1,000 feet but less than one-half mile of the JIS plume(s). The remaining 49 wells were located more than one-half mile from the JIS plume(s). All of the wells located within one-half mile of the JIS plume(s) are on streets serviced with public water. It has been confirmed with the local municipal water authorities that all 29 residents located within 1,000 feet of the JIS plume(s) are using the public water supply.

To support the biennial protectiveness certification an updated well search was performed. The well search was performed to identify any new well permits issued within a one mile radius of the CEA since the establishment of the CEA. The well searches performed included a search from coordinates (503,755; 555520) and (510,314; 556,316). The search from coordinates (503,755; 555520) covered the one mile distance up gradient and side gradient of the up

gradient limit of the CEA/WRA. The search from coordinates (510,314; 556,316) covered the one mile distance down gradient and side gradient of the down gradient edge of the CEA/WRA. The results of the updated well search are as follows:

***Wells Installed:***

- E201205894 – Irrigation well installed May 2012 on block 95, lot 2 (St. James Cemetery, Monroe Twp.). The CEA extends onto this lot and block. About 100 feet south of the CEA boundary.
- E201204869 – Non-Public Potable supply well located approx 5,000 feet south (side gradient) of the CEA area.
- E201105932 – Irrigation well located approximately 4,700 feet northeast of the Site.

All other records dated 2011 and after were for decommissioning of wells. A summary of the well search output and map showing locations of identified wells is included in Appendix C. A site plan showing the location of the new wells and decommissioned wells is included in Appendix C.

## **Section 3.0 Classification Exception Area**

The purpose of a CEA is to provide institutional control in accordance with N.J.A.C 7:26E-8.3 and Section III – Determination of Classification Exception Area, within the Final Guidance on Designation of Classification Exception Areas at <http://www.nj.gov/dep/srp/guidance/cea/ceaguid2.doc> (CEA Guidance Document). As specified in the CEA Guidance Document, the following subsections provide a description of the chemicals of concern (COCs), CEA boundaries, and CEA duration. A copy of the original CEA Fact Sheet and NJDEP CEA approval letter are included in Appendix A. A copy of the CEA map submitted with the CEA Application is presented in Appendix A.

### **3.1 Chemicals of Concern**

At the time the ROD was issued in 1995, a set of the COCs was developed identifying compounds that were present in the groundwater at concentrations that exceeded the NJ GWQS. The groundwater data that have been collected since that time have allowed a more accurate list of COCs to be developed; a list that takes into account factors such as alternate sources and the natural variability of background conditions. However, for the purpose of developing a CEA, a more conservative approach has been adopted. A synoptic groundwater sampling round was collected from all of the available groundwater monitoring wells in the area (including on-Site and off-Site) in December 2007. In addition, most of the monitoring

wells have had subsequent samples collected and analyzed as part of the ongoing biosparge and plume groundwater monitoring programs for the Site. The analytical results of all the sampling rounds collected between 2013 and 2015 have been compiled and compared to the NJ GWQS. The analytical results from these sampling rounds are presented in Table 1. Based on this comparison, the list of all the chemicals that exceeded the NJ GWQS at any well beneath the Landfill or within the plume areas downgradient of the Landfill in groundwater samples collected since 2013, regardless of potential source(s) and/or background conditions, has been generated and includes the following chemicals:

Benzene	Chloroethane
1,2-Dichloroethane	Xylene
1,2-Dichloropropane	Ethylbenzene
1,2,4-Trichlorobenzene	Methylene Chloride
1,4-Dichlorobenzene	Tetrachloroethene
Chlorobenzene	Trichloroethene
Vinyl Chloride	

By including all of the exceedances measured in the groundwater, the list is as conservative as possible and will lead to a CEA that is conservative and as inclusive as possible.

### **3.2 CEA Boundary**

Extensive groundwater data analysis and hydraulic modeling have been previously reported to the NJDEP during the course of the Remedial Investigation program. As a result, the groundwater flow pattern and chemical concentrations therein are well documented and have been determined to be relatively consistent. This comprehensive data set can be used to accurately define the ultimate boundary proposed for the CEA (the area where current chemical concentrations in the groundwater exceed NJ GWQS). As described in Section 2.3, there are two areas where the groundwater has been impacted; the Primary Plume and the Secondary Plume. The Primary Plume includes the area beneath and immediately downgradient of the JIS Landfill. As defined in the ROD, the Secondary Plume begins 5,000 feet downgradient of the Landfill. The Primary Plume encompasses groundwater impact from the JIS Landfill and potential upgradient and/or other background sources. The Secondary Plume Area encompasses groundwater that is within the hydraulic flow path downgradient of the Landfill but also has likely been impacted by additional source(s) within the area as noted in the Remedial Investigation Addendum Report for the Secondary Plume Area (CRA, 2009). Therefore the boundary selected for this CEA is conservative with regard to the impact attributable to the JIS Landfill.

While the CEA boundary identifies an overall areal extent of chemical impact, these impacts are not vertically continuous in the underlying aquifer over the entire area. The monitoring well network allows monitoring of groundwater quality at three vertical intervals of depth within the Old Bridge Aquifer (shallow, intermediate, and deep). For the most part, only the lower (intermediate and deep) portions of the aquifer along the alignment of the Primary and Secondary Plumes contain chemical concentrations that exceed NJ GWQS. The areas of exceedance of the NJ GWQS in the shallow portion of the aquifer are limited to the JIS property and immediately adjacent properties. The areas of exceedance of the NJ GWQS for the individual portions of the aquifer (shallow, intermediate, and deep) that were combined to determine the current CEA limits are presented on Figures 2, 3, 4, and 5 respectively.

Based on the analytical results of groundwater sampling completed since NJDEP's initial approval of the CEA, the areal extent of groundwater impact has decreased. In addition, the concentrations of COCs within the plume area have decreased. The proposed revised limits of the CEA for 2015 are presented on Figure 6.

In general, the CEA encompasses the JIS property as well as the linear pathway southeast and downgradient of the Landfill roughly following the direction of Docks Corner Road, toward and crossing Rhode Hall Road, then shifting more easterly crossing Mott Avenue and Helmetta Road. The CEA is approximately 1,000 feet wide at the JIS Landfill Site. Downgradient of the Site, the biosparge system has resulted in a separation of the plume with a clean zone extending from approximately 500 feet downgradient of the site to approximately 1,500 feet downgradient of the Site. Where reinitiated at the downgradient location, the CEA is approximately 1,000 feet wide, narrowing to approximately 300 feet at Rhode Hall Road, until the point of termination approximately 300 feet east of Mott Avenue. Consistent with the limits of the plume, the CEA encompasses portions of three municipalities including South Brunswick Township, Jamesburg, and Monroe Township. A listing of the properties included within the limits of the CEA is provided in Table 2.

Based on the reduction in the areal extent of the CEA that was established in 2011, the following properties are no longer included within the 2015 CEA:

<b>Block</b>	<b>Lot</b>	<b>Address</b>
95	3.03	Cherry Blossom Drive
95	3.04	41 Cherry Blossom Drive
95	3.05	39 Cherry Blossom Drive
95	3.06	37 Cherry Blossom Drive
95	3.07	35 Cherry Blossom Drive
95.02	6	11 Harold Plaza
95.02	7	13 Harold Plaza

<b>Block</b>	<b>Lot</b>	<b>Address</b>
95.02	8	12 Harold Plaza
95.02	9	10 Harold Plaza
95.02	19	48 Cherry Blossom Drive
95.02	20	46 Cherry Blossom Drive
95.02	21	40 Cherry Blossom Drive
95.02	22	38 Cherry Blossom Drive
95.02	23	36 Cherry Blossom Drive
95.02	24	34 Cherry Blossom Drive
95.02	28	24 Cherry Blossom Drive
95.02	29	22 Cherry Blossom Drive
95.02	30	20 Cherry Blossom Drive
68	1	32B Quail Run
68	1	30B Quail Run

### 3.3 CEA Longevity

In accordance with N.J.A.C. 7:26 E-6.2.17.ii, it is necessary to provide a proposed expiration date (i.e., longevity) identifying when impacted groundwater is expected to meet NJ GWQS within the CEA. This section provides the basis for the determination of the proposed expiration date for the CEA.

Historical concentrations at six key deep monitoring wells located along the central axis of the JIS plume(s) (MW-23D, MW-25D, MW-30D, MW-32D, MW-34D, and MW-60D) demonstrate that concentrations of chemicals that exceed the NJ GWQS criteria are decreasing over time. These wells have historically had the highest chemical concentrations and are therefore the most representative of the conditions within the plume. Therefore, these wells were used to calculate the longevity of the plume. In addition, TCE was detected at 3 µg/L in the March 2015 sample from MW-22I. Thus, this well was also used to calculate the longevity of the plume.

It is noted that the longevity of the plume under the JIS property will be different than that in the plume area downgradient of the biosparge injection system. The calculations for this analysis were directed at estimating the longevity of the CEA in the downgradient area that is located more than 1,500 feet east of the JIS property. It is recognized that since waste materials have been left on-Site, the CEA for the JIS property itself is likely to remain in effect for a longer period of time than for the downgradient plume area.

The longevity evaluation originally screened the ten COCs that had exceedances of the NJ GWQS identified in the 2007 through 2010 time frame. Only four of the ten COCs (benzene, TCE, vinyl chloride, and chlorobenzene) exceeded the NJ GWQS in at least one of the

sevenwells previously referenced. Therefore, the longevity calculations were performed for these four COCs.

The best estimate of longevity can be determined through extrapolation of the historical trends and fate and transport considerations associated with these COCs. Graphs showing the historical logarithmic concentrations versus time from 1998 through 2015 for these COCs (and the remaining six COCs) are presented in Appendix D. These graphs provide the information necessary to determine what the historic changes in concentrations have been, and through extrapolation, provide the best estimate of the length of time that it is expected to take for the concentrations to reach NJ GWQS criteria. The estimates are based on calculations that use best fit and regression analysis for each of the COCs. Using the best fit/most conservative estimates of the degradation rates for each of the current COCs, the degradation rate of each COC was determined, and the maximum time to achieve the NJ GWQS for each COC in the off-property portion of the CEA was estimated.

At some monitoring wells, TCE biodegradation daughter product cis-1,2-DCE was detected in addition to TCE. However, this biodegradation daughter product is below its respective NJ GWQS criteria and is also generally declining. Therefore, determination of the rate of generation of degradation products (which would offset degradation rates) was not necessary. The chemical that requires the longest time to achieve its NJ GWQS criteria is benzene, which generally does not generate long-lived organic biodegradation by-products. (CO<sub>2</sub> is the ultimate biodegradation end product for benzene.)

The anticipated length of time for the groundwater quality in the intermediate/deep aquifer to reach the NJ GWQS criteria, considering the above physical and degradation processes, can be calculated by the following equation:

$$t = \frac{\ln \frac{c}{c_0}}{k}$$

where :

t = time (T)

c = final concentration

c<sub>0</sub> = initial concentration

k = degradation rate (T<sup>-1</sup>)

The following presents the values used for the parameters presented in the above equation and the basis for the selected values.

### ***Initial and Final Concentrations***

The maximum concentration for each chemical that must degrade to the NJ GWQS criteria (initial concentration,  $c_0$ ) is the March 2015 groundwater sampling result. The final concentration,  $c$ , was set as the NJ GWQS criteria.

### ***Degradation Rate***

The degradation rate ( $k$ ) was estimated using the best-fit method whereby a line, which has the lowest variance relative to the time series of available analytical results, is fitted to the results. This is the concentration of a chemical in a well over a certain time period (1998 through 2015).

The degradation rate was calculated for each COC at each monitoring well by calculating the slope of the best-fit line. The degree of fit (R-squared value) is a measure of how well the data actually fit the "best-fit" line. R-squared values range from 0 to 1.0, with values closer to 1.0 showing that there is a good fit with the line and that there is an identifiable trend. R-squared values close to zero indicate that there is no trend or that all or almost all of the data have the same value (i.e., a horizontal line). The best-fit lines and the associated R-squared values are included on the graphs in Appendix D. Table 3 presents the P-values, R-squared values, and slope (which is equivalent to the degradation rate) for the COCs for each individual well.

For each COC, the best-fit/most conservative degradation rate was selected for use in the attenuation time equation. The selected degradation rates using the best-fit method are shown in bold in Table 3. The time that it would then take for the chemical in the well to reach the NJ GWQS criteria was calculated by dividing  $\ln(C_0/C)$  (the initial concentration divided by the NJ GWQS criteria) by the degradation rate, then dividing by 365 (to convert to years).

It is noted that data trends for all four compounds that were detected in at least one of the seven wells above the NJ GWQS criteria are nearly approaching or below the NJ GWQS criteria in each of the wells. No statistically significant trend could be calculated for chlorobenzene. However, the maximum March 2015 concentration of 49 µg/L in well MW-60D is less than its NJ GWQS and is expected to remain below its NJ GWQS. Furthermore, while the calculated trend for vinyl chloride is shown as increasing at well MW-60D, the trend for the 2013 through 2015 concentrations was decreasing with the March 2015 concentration less than its NJ GWQS. The decreasing trend observed from 2013 to 2015 are expected to continue once the treatment zone of oxygen enriched groundwater created by the biosparge injection system reaches this well location since vinyl chloride is amenable to aerobic degradation. Well MW-60D is included

in the annual groundwater monitoring program for the plume and will provide the information necessary to track and report upon the vinyl chloride results at this well.

### ***Conclusions***

The chemical that requires the longest time to attenuate to its NJ GWQS criteria is benzene. Benzene is also the primary COC associated with the JIS plume and most appropriate for estimating the CEA duration associated with the JIS Landfill. Using the best-fit/most conservative degradation rate (-0.00003), the estimated time for benzene to reach its GWQS criteria is 21 years. Based upon this calculation, it is estimated that the CEA will be required to remain in place for 21 years. For the remaining COCs, the estimated length of time to degrade to their respective NJ GWQS criteria are as follows:

- |                  |                               |
|------------------|-------------------------------|
| • TCE            | 15years                       |
| • Vinyl Chloride | Already meet NJ GWQS criteria |
| • All other COCs | Already meet NJ GWQS criteria |

In accordance with the regulations, the horizontal and vertical extent of the CEA will be regularly reviewed and revised as part of the Biennial Certification of the CEA. This review will include an assessment of conditions that may affect the fate and transport of the JIS plume(s). The conditions to be assessed include:

- Groundwater extraction within or proximal to the JIS plume(s) as this could alter the groundwater flow path
- Changes in surface water management (i.e., construction of new or changes to precipitation infiltration ponds) which also could affect the groundwater flow path
- Property development within the JIS plume(s) which could affect infiltration patterns and the groundwater flow path
- Property development within the shallow portion of the JIS plume(s) which could create conditions that need to be evaluated for vapor intrusion potential

The concentration trends, degradation rates, longevity, and areal limits to be included in the CEA will be re-evaluated biennially in the CEA certifications. If groundwater analytical data indicate compliance with the NJ GWQS then a request for the removal of the CEA will be made, for the applicable portions that meet NJ GWQS.

## Section 4.0 Groundwater Monitoring

Groundwater monitoring is being performed as part of the Administrative Consent Order dated October 2004 and the Administrative Order dated September 2010. The monitoring will be performed consistent with the plan specified in the Remedial Action Work Plan (an Attachment to the September 2010 Administrative Order) and as updated (i.e. September 16, 2014 CRA letter to USEPA). The program has been devised to be able to track the changes in groundwater quality within the CEA. Although groundwater monitoring is not required for CEA biennial certification purposes, (except if termination of the CEA is planned), the data from the Site's groundwater monitoring program, to the extent that this information is available, will be taken into consideration in the biennial certifications.

All groundwater sampling was performed using standard low flow sampling procedures. The groundwater monitoring program includes the following:

1. Static groundwater elevations
2. Measurement of field parameters - dissolved oxygen, oxidation reduction potential, pH, temperature, turbidity, and conductivity at the time of sampling for which CRA is certified under the NJDEP laboratory program.
3. Chemical analysis at a New Jersey certified laboratory for VOCs (using method USEPA 624 modified) including 1,4-dichlorobenzene and 1,2,4-trichlorobenzene
4. Chemical analysis at a New Jersey certified laboratory for total arsenic and manganese

Any proposed modifications to the monitoring program will be presented in the Biennial Certifications.

### 4.1 Monitoring Well Maintenance

Maintenance of monitoring wells performed since May 2013 was as follows:

<b>Well ID</b>	<b>Maintenance Performed</b>
-MW22D	New protective surface casing installed
-MW48 I	New flush mount cover installed
-MW48S	New flush mount cover installed

## Section 5.0 Biosparge System Operational History

The biosparge system was installed to address the off-site migration of COCs. The Biosparge system consists of an air compressor and a series of air injection wells which introduce oxygen into the groundwater to enhance the natural degradation of the COCs. The biosparge system is designed for continuous operation with short duration shutdowns for the performance of maintenance activities. During the period spanning 2012 to May 2015, periodic short term shutdowns occurred for maintenance of the system. Shutdowns also occurred for conditions outside of operation control. A summary of shutdown events, including shutdowns that lasted longer than 24 hours, are summarized in Table 4.

## Section 6.0 Public Notice Requirements

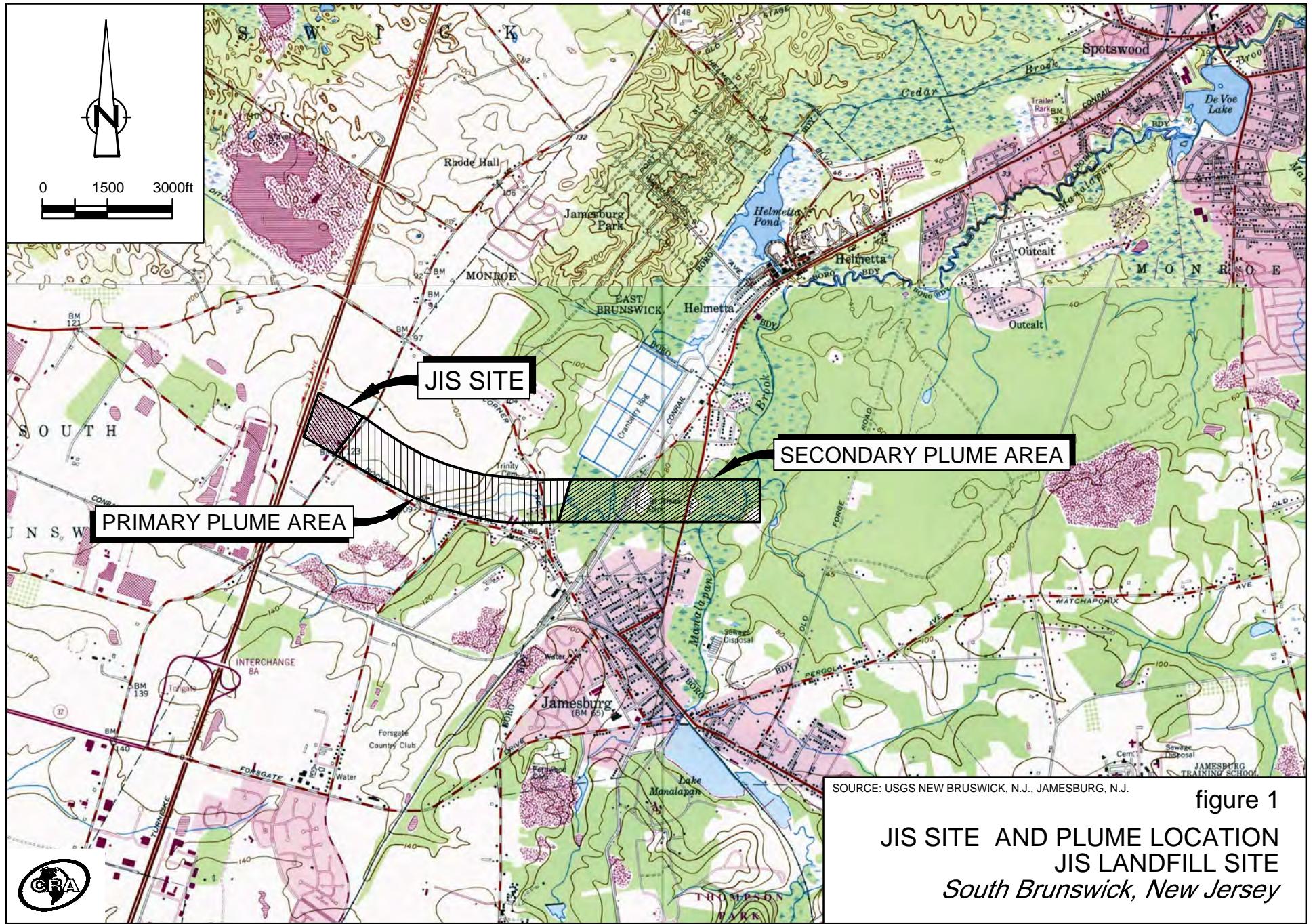
A summary listing of properties overlying the CEA and Well Restriction Area is included in Table 2 and illustrated on Figure 6. Each property owner will be notified by certified letter (return receipt requested) of the inclusion of their property within the CEA and Well Restriction Area and the implications of their inclusion. Notifications will also be sent to the local municipalities and Health Departments. Copies of a draft notification letters are included in Appendix E. Delivery confirmation will be provided in a subsequent submittal to NJDEP within 60 days of the submission of the Biennial protectiveness submission.

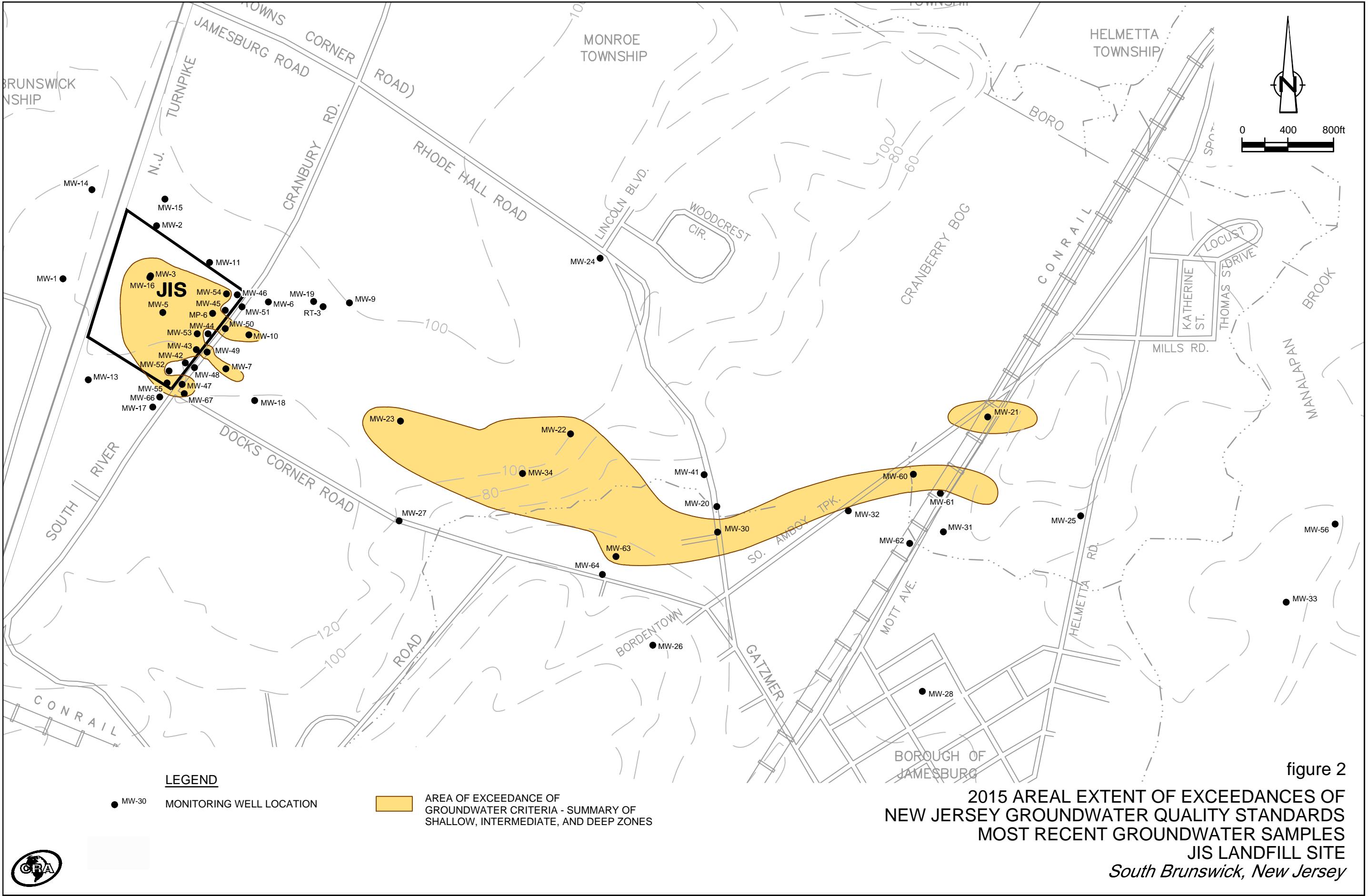
## Section 7.0 Summary

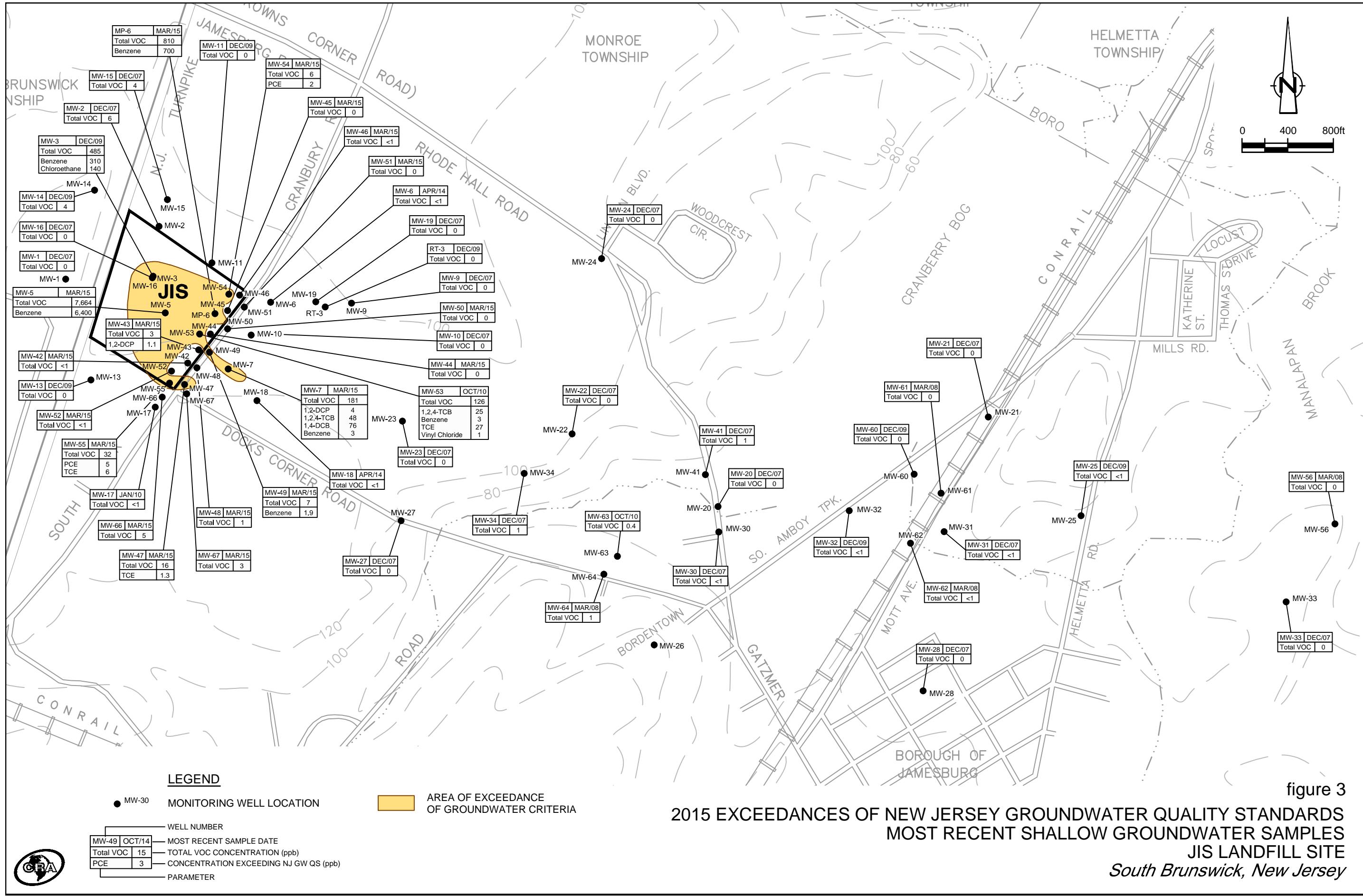
The CEA, in conjunction with the Well Restriction Area, provides institutional control in accordance with N.J.A.C 7:26E-8.3 to better protect potential groundwater users and building inhabitants at and downgradient of the JIS Landfill. The proposed limits of the CEA and Well Restriction Area have been developed using current Site data for COCs that are present at concentrations greater than the NJ GWQS for Class IIA groundwater, regardless of the source of the COCs. The CEA boundary coincides with the areal extent of the plume as of 2015 to the base of the Old Bridge Aquifer which can be as much as 130 feet below ground surface. Over most of the area of the CEA, the shallow portion of the aquifer is not impacted. Further, since the NJ GWQS criteria are lower than those for groundwater screening levels for vapor intrusion, the CEA boundary conservatively includes any areas where vapor intrusion potential exists. The horizontal and vertical extent as well as duration of the CEA will be reviewed, and revised as appropriate, as part of the Biennial Certification.

## Section 8.0 References

- Barksdale, H.C., M.E. Johnson, E.J. Schaefer, R.C. Baker, and G.D. DeBuchananne, 1943. The Ground-Water Supplies of Middlesex County, New Jersey, New Jersey State Water Policy Commission Special Report 8, 160 p.
- Conestoga-Rovers & Associates, 2004. Domestic Water Supply Study of Old Forge Road.
- Conestoga-Rovers & Associates, 2008. Remedial Investigation – Secondary Plume Area.
- Conestoga-Rovers & Associates, 2009. Remedial Investigation Addendum – Secondary Plume Area.







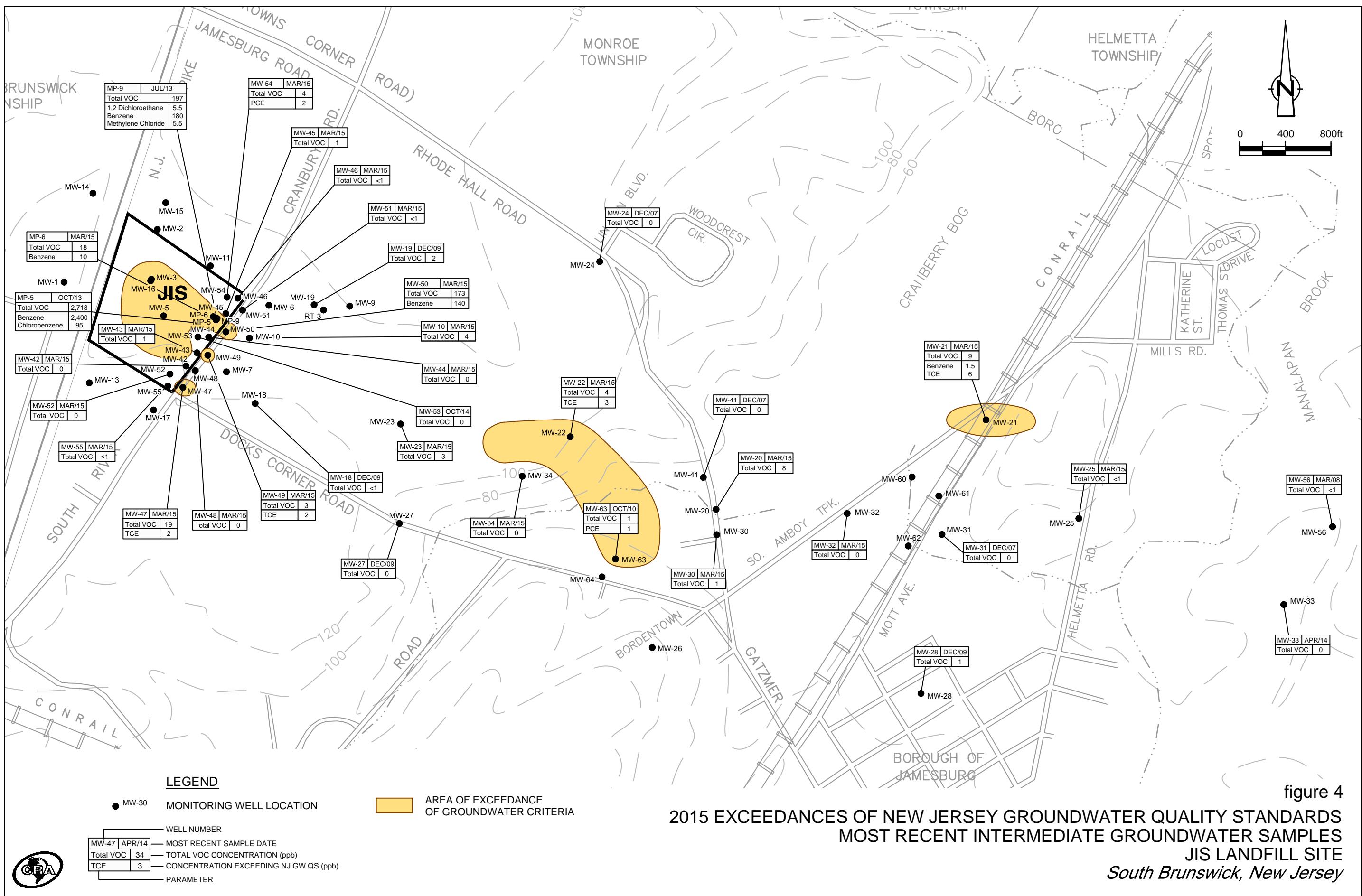
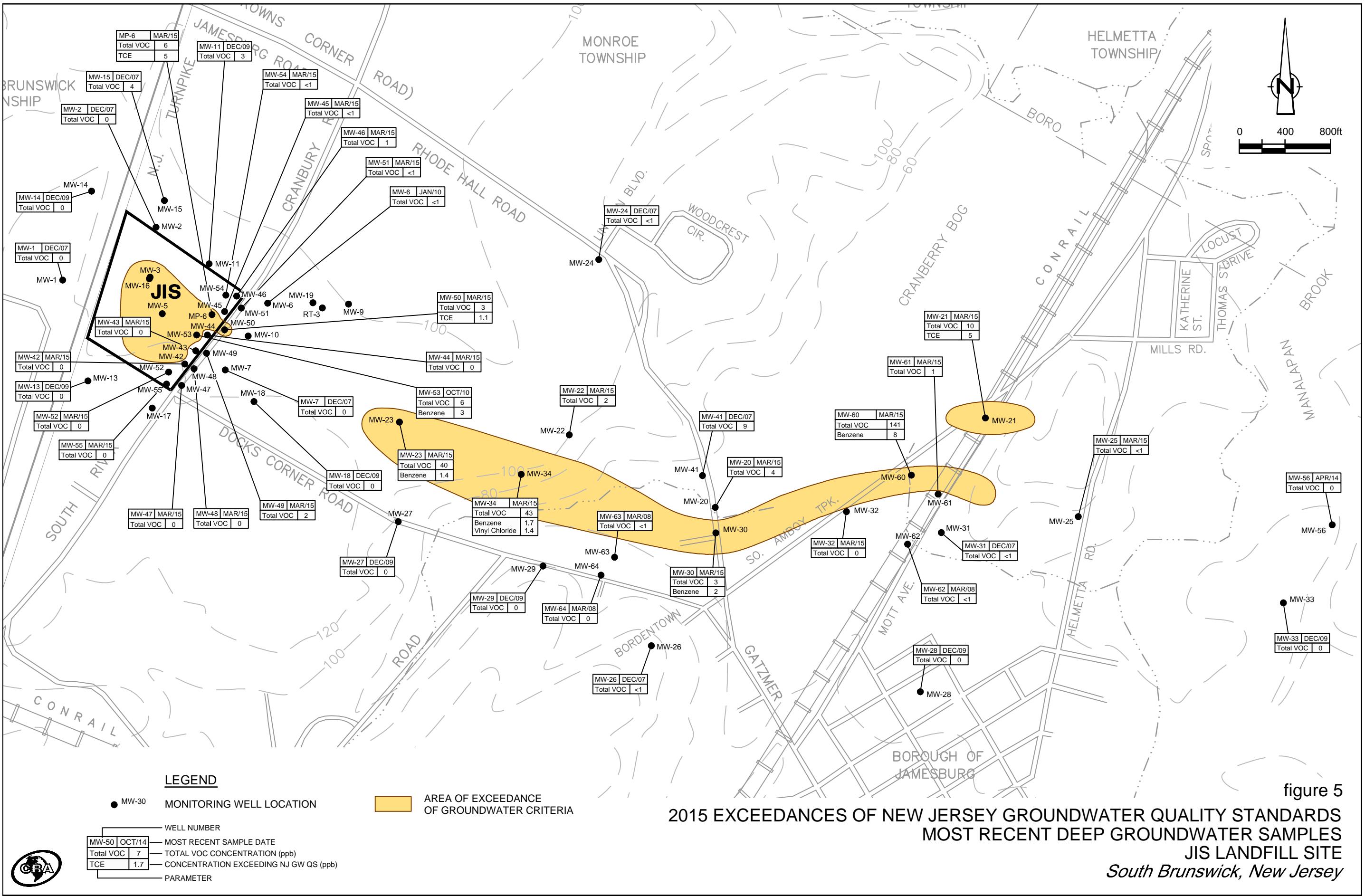
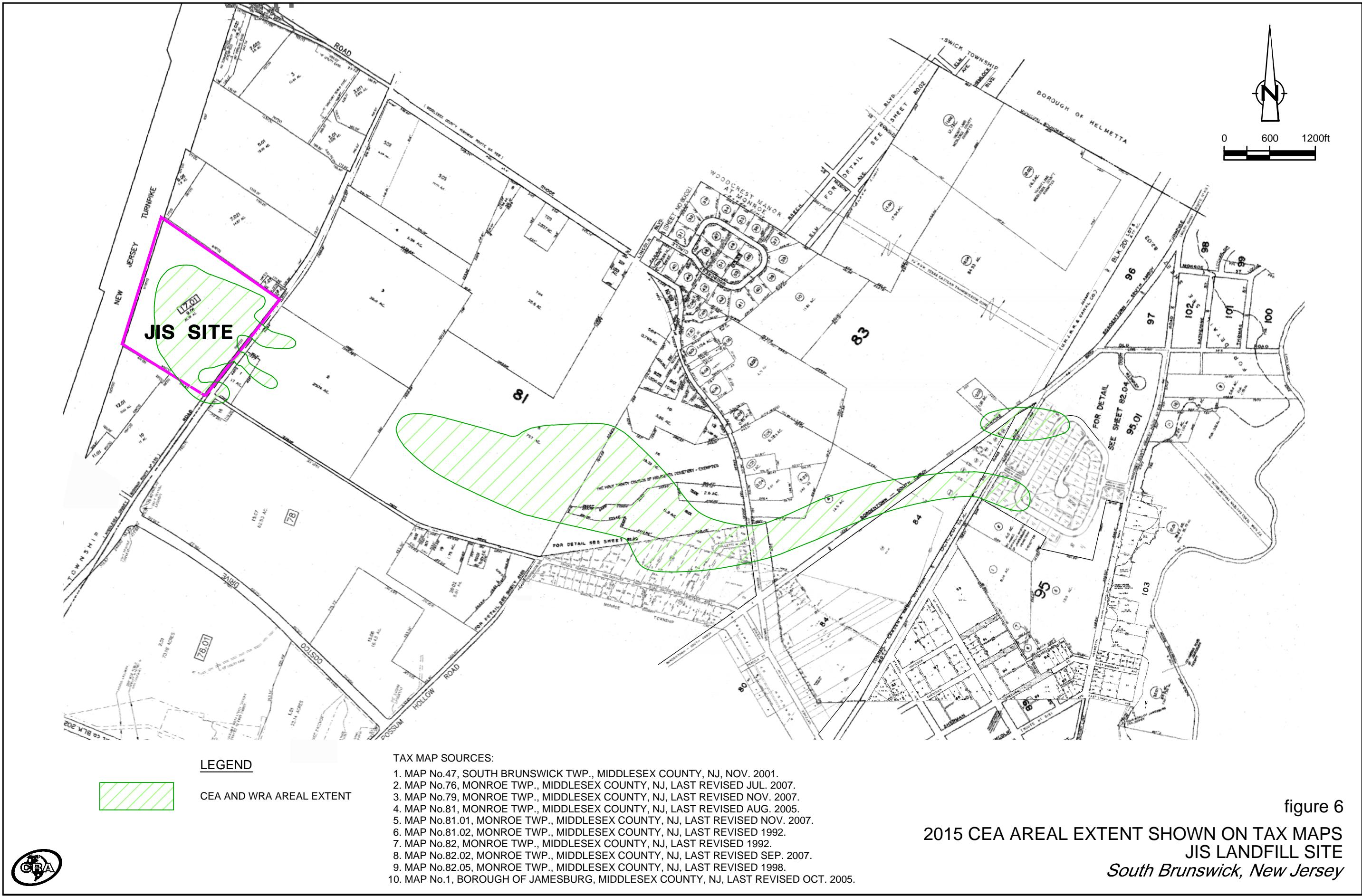


figure 4

2015 EXCEEDANCES OF NEW JERSEY GROUNDWATER QUALITY STANDARDS  
MOST RECENT INTERMEDIATE GROUNDWATER SAMPLES  
JIS LANDFILL SITE  
*South Brunswick, New Jersey*

14737-00(067)GN-WA003 APR 28/2015





**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

## Notes:

< - Less than amount shown.

> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated

UJ - Not detected; associated rep

- Not applicable.

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MP-6IR	MP-6SR														
Sample ID:	14737-070913-18	14737-101613-15	14737-020414-07	14737-042414-41	14737-072414-10	14737-101514-02	14737-011315-14	14737-033115-068	14737-010713-06	14737-040813-26	14737-070913-19	14737-101513-11	14737-020414-06	14737-042414-42	14737-072414-11	14737-101514-01
Sample Date:	7/10/2013	10/16/2013	2/4/2014	4/24/2014	7/24/2014	10/15/2014	1/14/2015	3/31/2015	1/7/2013	4/8/2013	7/10/2013	10/15/2013	2/4/2014	4/24/2014	7/24/2014	10/15/2014
<b>Parameters</b>																
<b>NJDEP Groundwater Quality Criterion</b>																
<b>Volatiles</b>																
1,1,1-Trichloroethane	ug/L	30	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	3	150 U	10 U	1.0 U	1.0 U	1.0 U	0.29 J	0.36 J	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	50	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	0.21 J	1.0 U	0.26 J	
1,1-Dichloroethene	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	9	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 J	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	150 U	10 U	2.8 J	2.2	2.0	0.45 J	1.0 U	2.0	200 U	70 J	2.3 J	1.7	1.8	2.1
1,2-Dichloroethane	ug/L	2	150 U	10 U	1.0 U	1.0 U	1.0 U	0.31 J	0.31 J	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1	150 U	8.5 J	8.5 J	7.0	9.7	8.7	1.3	1.0 U	1.0 U	200 U	12 J	4.9 J	4.6	3.5
1,3-Dichlorobenzene	ug/L	600	150 U	50 U	47 J	74	64 J	30	26	52	12	0.68 J	59	78 J	62 J	94 J
1,4-Dichlorobenzene	ug/L	75	47 J	74	64 J	30	26	52	12	0.68 J	59	78 J	62 J	45 J	41	42
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	750 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1000 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	6000	750 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1000 U	130 U	5.0 U	5.0 U	5.0 U	5.1
Benzene	ug/L	1	2700	2000	3700	2100	1200	120	12	10	1300	3500	3800	4900	2000 J	950
Bromodichloromethane	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	4	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	50	150 U	14	29 J	42	76	26	8.1	2.6	22	19	200 U	25	20 J	18
Chloroethane	ug/L	5	150 U	10 U	11 J	7.9	20	8.7	6.8	3.7	10	13	200 U	25 U	14 J	7.3
Chloroform (Trichloromethane)	ug/L	70	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	-	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	150 U	10 U	1.0 U	0.22 J	0.34 J	1.0 U	0.21 J	1.0 U	0.66 J	1.9	200 U	25 U	0.50 J	0.25 J
cis-1,3-Dichloropropene	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	150 U	7.6 J	11 J	8.3	7.2	7.4	2.8	1.0 U	6.4	7.7	200 U	16 J	11 J	9.1
Dibromochloromethane	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1000	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	700	150 U	20	80 J	7.8	3.7	0.16 J	1.0 U	1.0 U	14	54	200 U	94	34 J	13
Hexane	ug/L	30	150 U	10 U	2.2 J	2.0	2.7	1.0 U	1.0 U	2.3	1.0 U	2.3	200 U	25 U	3.3 J	2.0
Methylene chloride	ug/L	3	150 U	10 U	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1	150 U	10 U	1.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	600	150 U	2.4 J	13 J	3.7	0.59 J	0.21 J	1.0 U	3.3	4.4	200 U	4.6 J	4.7 J	2.1	2.5
trans-1,2-Dichloroethene	ug/L	100	150 U	10 U	1.7 J	2.2	4.5	1.9	1.5	0.78 J	1.6	1.7	200 U	25 U	1.6 J	1.7
trans-1,3-Dichloropropene	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.13 J	0.26 J	1.0 U	0.22 J	200 U	25 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1	150 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1000														

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MP-6SR	MP-6SR	MP-9I	MP-9I	MP-9I	MW-5	MW-5	MW-5														
Sample ID:	14737-011315-13	14737-033115-069	14737-040813-23	14737-070913-13	14737-101613-13	14737-010713-04	14737-040813-35	14737-070913-08	14737-101413-01	14737-020414-04	14737-020414-05	14737-042514-45	14737-072414-08	14737-101514-05	14737-072414-08	14737-101514-05	14737-011315-17	14737-011315-17	14737-033115-069			
Sample Date:	1/14/2015	3/31/2015	4/8/2013	7/10/2013	10/16/2013	1/7/2013	4/8/2013	7/9/2013	10/14/2013	2/4/2014	2/4/2014	4/25/2014	7/24/2014	10/15/2014	1/14/2015	1/14/2015	3/31/2015					
Parameters	Units	NJDEP Groundwater	Quality Criterion																			
<b>Volatiles</b>																						
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,1-Dichloroethane	ug/L	50	0.39 J	0.49 J	0.37 J	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	13 U	1.0 U	0.50 J	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,2-Dichlorobenzene	ug/L	600	2.4	1.4	1.0 U	13 U	0.65 J	5.3	4.1	500 U	19 J	20 J	22 J	18 J	21 J	11	16 J	11				
1,2-Dichloroethane	ug/L	2	0.49 J	0.59 J	1.0 U	5.5 J	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
1,3-Dichlorobenzene	ug/L	600	7.3	4.4	0.53 J	13 U	2.1	9.1	500 U	23 J	21 J	23 J	21 J	19 J	11	15 J	12					
1,4-Dichlorobenzene	ug/L	75	78	44	3.5	3.2 J	16	54	31	500 U	56	45 J	50 J	89 J	160	65	82	33				
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	63 U	5.0 U	5.0 U	2500 U	250 U	3.5 J	4.2 J	1.7 J	130 U	50 U	100 U	5.0 U					
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	63 U	5.0 U	5.0 U	2500 U	250 U	5.0 U	5.0 U	5.0 U	130 U	50 U	100 U	24					
Benzene	ug/L	1	250	700	57	180	240	5000	2100	11000	16000	14000 J	14000	21000	30000	34000	31000 J	6400				
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Chlorobenzene	ug/L	50	21	19	1.3	2.4 J	4.0	240	200	1000	800	620 J	610	450 J	950	600	1000	700				
Chloroethane	ug/L	5	15	12	1.3	13 U	3.3	13	5.4	500 U	50 U	33 J	43 J	57 J	170	67	83	18				
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
cis-1,2-Dichloroethene	ug/L	70	1.0 U	0.62 J	0.60 J	13 U	0.67 J	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U				
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Cyclohexane	ug/L	-	10	7.8	0.29 J	13 U	1.0 U	53	25	500 U	140	31 J	36 J	79 J	70	62	78	6.1				
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Ethylbenzene	ug/L	700	0.74 J	4.1	0.21 J	13 U	1.0	26	29	410 J	120	810 J	720	750	3500	1300	570	46				
Hexane	ug/L	30	2.9	1.3	1.0 U	13 U	1.0	2.4	1.0	500 U	50 U	1.8 J	1.0 U	2.6 J	25 U	10 U	20 U	1.0 U				
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	5.5 J	1.0 U	1.0 U	270 J	50 U	2.1 J	2.3 J	2.2 J	25 U	10 U	20 U	1.0 U					
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	13 U	1.0 U	1.0 U	500 U	50 U	1.0 U	1.0 U	1.0 U	25 U	10 U	20 U	1.0 U					
Toluene	ug/L	600	0.77 J	1.8	0.22 J	13 U</td																

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-6S	MW-6S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-10I	MW-10I	MW-10I	MW-18S	MW-18S	MW-20D	MW-20D	MW-20D	MW-20I	
Sample ID:	14737-041013-50	14737-040914-004	14737-041013-53	14737-041013-54	14737-040914-008	14737-040914-010	14737-032615-018	14737-041013-51	14737-040914-006	14737-032615-019	14737-041013-52	14737-041014-012	14737-041113-60	14737-041014-016	14737-041014-016	14737-032615-020	14737-041113-59
Sample Date:	4/10/2013	4/9/2014	4/10/2013	4/10/2013	Duplicate	4/9/2014	4/9/2014	3/26/2015	4/10/2013	4/9/2014	3/26/2015	4/10/2013	4/9/2014	4/11/2013	4/10/2014	3/26/2015	4/11/2013
<b>Parameters</b>																	
<b>Volatiles</b>	Units	Groundwater	Quality Criterion														
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	1.0 U	0.82 J	0.73 J	0.73 J	1.0 U	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	0.62 J	11	9.5	28	30	48	1.6	1.0 U	1.0 U	1.0 U	1.0 U	2.3	0.58 J	
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	8.6	7.2	13	12	14	0.83 J	0.37 J	1.0 U	1.0 U	1.1	0.73 J	0.24 J	
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	0.57 J	0.39 J	1.2	1.1	1.3	1.0 U	1.0 U	1.0 U	1.0 U	0.47 J	0.44 J	0.32 J	
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.9	1.3	2.8	2.5	3.6	1.0 U	1.0 U	0.54 J	0.61 J	1.0 U	0.31 J	1.0 U	
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	3.8	3.1	7.7	6.9	14	3.5	1.4	1.0 U	1.0 U	1.1	0.60 J	0.37 J	
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	14	11	56	52	76	15	6.3	1.1	1.0 U	1.0 U	7.4	6.4	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Benzene	ug/L	1	1.0 U	1.0 U	0.89 J	0.79 J	2.0	2.0	2.8	5.2	2.5	0.71 J	1.0 U	1.0 U	0.88 J	0.42 J	
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	ug/L	50	1.0 U	1.0 U	8.7	7.1	13	12	16	13	7.9	0.81 J	1.0 U	1.0 U	3.5	2.2	
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.4	3.1	1.3	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	0.34 J	0.26 J	0.53 J	0.52 J	0.81 J	1.0 U	0.29 J	1.0 U	1.0 U	1.4	0.81 J	1.0 U	
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	-	1.0 U	1.0 U	0.35 J	0.25 J	0.85 J	0.84 J	2.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	700	1.0 U	1.0 U	0.11 J	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	0.22 J	0.43 J	
Toluene	ug/L	600	1.0 U	1.0 U	0.15 J	0.23 J	0.22 J	0.30 J	0.17 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	0.29 J	0.22 J	0.38 J	0.41 J	0.43 J	1.0 U	0.25 J	0.22 J	1.0 U	1.0 U	0.54 J	0.43 J	
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.66 J	
Trichloroethene	ug/L	1	1.0 U	1.0 U	0.32 J	0.20 J	0.41 J	0.34 J	0.63 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.59 J	0.52 J	
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	0.58 J	0.48 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L																

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

#### Notes:

< - Less than amount shown.

< - Less than amount shown.  
> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated

UJ - Not detected; associated reporting limit is estimated

- Not applicable.

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

#### Notes:

< - Less than amount shown.

> - Greater than amount shown

J - Estimated concentration.

U - Not detected at the associated reporting limit.

UJ - Not detected

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

#### Notes:

< - Less than amount shown.

< - Less than amount shown.  
> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated

UJ - Not detected; associated reporting limit is estimated

33 - Not detected  
- Not applicable.

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-42D	MW-42I	MW-42I	MW-42I	MW-42I	MW-42S	MW-42S	MW-42S	MW-42S	MW-43D						
Sample ID:	14737-033115-066	14737-040513-18	14737-040513-19	14737-040814-06	14737-033115-065	14737-040513-16	14737-040814-05	14737-033115-063	14737-033115-064	14737-010813-14	14737-040913-40	14737-070913-05	14737-101413-03	14737-020414-01	14737-042414-31	14737-072414-04
Sample Date:	3/3/2015	4/5/2013	4/5/2013	4/8/2014	Duplicate					1/8/2013	4/9/2013	7/9/2013	10/14/2013	2/4/2014	4/24/2014	7/24/2014
<b>Parameters</b>																
<b>Volatiles</b>	Units	NJDEP Groundwater	Quality Criterion													
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44 J	0.24 J	0.33 J	0.37 J	1.0 U				
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.82 J	1.0 U	1.0 U	0.53 J	1.0 U	0.11 J	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.11 J	1.0 U				
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	0.20 J	1.0 U	1.0 U	0.10 J	0.11 J
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	0.44 J	0.36 J	1.0 U	0.32 J	0.34 J	0.33 J	1.0 U	0.25 J
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.2	1.1	1.2	1.1	0.82 J	0.92 J
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.10 J	1.0 U	1.0 U	0.84 J	1.1	0.76 J	0.76 J	0.87 J	0.69 J
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1000	2.0 U	3.0 U	3.0 U	2.0 U	3.0 U	2.0 U	2.0 U							

**TABLE 1**

# **GROUNDWATER ANALYTICAL RESULTS 2013 THROUGH 2015 SAMPLING EVENTS JIS LANDFILL SITE**

Sample Location:	MW-43D	MW-43D	MW-43D	MW-43I	MW-43S	MW-43S										
Sample ID:	14737-101514-06	14737-011315-04	14737-033115-048	14737-010813-13	14737-040913-41	14737-040913-42	14737-070913-06	14737-101413-04	14737-020414-02	14737-042414-32	14737-072414-05	14737-101614-08	14737-011315-05	14737-033115-049	14737-010813-15	14737-040913-43
Sample Date:	NJDEP 10/15/2014	1/13/2015	3/31/2015	1/8/2013	4/9/2013	4/9/2013	7/9/2013	10/14/2013	2/4/2014	4/24/2014	7/24/2014	10/16/2014	1/13/2015	3/31/2015	1/8/2013	4/9/2013
Parameters	Units	Quality Criterion														
<b>Volatiles</b>																
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	2.2	1.0 U	1.0 U	1.0 U							
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	0.26 J	0.74 J	0.56 J	0.45 J	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	2.4	0.23 J	1.0 U	1.0 U	1.0 U						
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	5.5	0.16 J	0.11 J	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U	0.24 J	1.0 U
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	0.32 J	1.0 U	1.0 U	1.0 U							
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	70	1.0 U	0.091 J	1.0 U	1.0 U	1.0 U									
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.37 J	0.37 J	1.0 U
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.30 J	1.0 U	1.0 U	1.0 U				
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1	2.0	0.83 J	0.71 J	1.0 U	0.20 J	0.18 J	1.0 U	1.0 U	0.13 J	0.11 J	1.0 U	0.19 J	1.0 U	1.0 U
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	1.0 U	1.0 U	1.0 U				
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1	0.47 J	0.51 J	0.58 J	0.32 J	0.31 J	0.25 J	1.0 U	1.0 U	0.22 J	0.18 J	0.40 J	1.1	0.90 J	1.0 U
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1000	2.0 U	2.0 U	2.0 U	3.0 U	3.0 U	3.0 U	1.9 J	2.0 U	2.0 U	3.0 U				
Total VOCs	ug/L	-	2.47	1.431	1.29	11	1.64	1.1	5.05	0.32	ND	0.35	0.64	0.4</td		

#### Notes:

< - Less than amount shown

< - Less than amount shown.

| - Estimated concentration.

II - Not detected at the associated re-

III - Not detected: associated reporting limit is estimated

UJ - Not detected

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-43S	MW-43S	MW-43S	MW-43S	MW-43S	MW-43S	MW-43S	MW-43S	MW-43S	MW-44D						
Sample ID:	14737-070913-07	14737-101413-05	14737-020414-03	14737-042414-33	14737-072414-06	14737-072414-07	14737-101614-07	14737-011315-06	14737-033115-045	14737-010813-17	14737-040913-39	14737-070913-01	14737-101513-06	14737-020714-15	14737-042414-37	14737-072414-02
Sample Date:	7/9/2013	10/14/2013	2/4/2014	4/24/2014	7/24/2014	7/24/2014	10/16/2014	1/13/2015	3/31/2015	1/8/2013	4/9/2013	7/9/2013	10/15/2013	2/7/2014	4/24/2014	7/24/2014
<b>Parameters</b>																
<b>Volatiles</b>	Units	NJDEP Groundwater Quality Criterion														
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1-Dichloroethane	ug/L	50	0.13 J	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	0.37 J	1.0 U						
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,2-Dichloroethane	ug/L	2	1.8	1.0 U	1.8 J	1.1	1.5	2.3	2.8	2.0	1.0 U					
1,2-Dichloropropane	ug/L	1	0.73 J	1.0 U	1.0 U	0.51 J	0.55 J	0.54 J	0.83 J	1.2	1.1	1.0 U				
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	0.15 J	1.0 U	1.0 U	1.0 U						
1,4-Dichlorobenzene	ug/L	75	1.0 U	0.82 J	1.0 U	1.0 U	1.0 U	0.33 J	1.0 U	1.0 U	1.0 U					
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U						
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U						
Benzene	ug/L	1	0.14 J	1.0 U	1.0 U	0.19 J	0.16 J	2.6	1.4	1.0 U	0.39 J	0.21 J	1.0 U	1.0 U	1.0 U	0.11 J
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Chlorobenzene	ug/L	50	1.0 U	0.34 J	1.0 U											
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Ethylbenzene	ug/L	700	1.0 U	0.66 J	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U	1.0 U					
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	3.8	1.0 U	1.0 U	1.0 U						
trans-1,2-Dichloroethene	ug/L	100	1.0 U	0.22 J	1.0 U											
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Trichloroethene	ug/L	1	1.0 U	0.13 J	0.37 J	0.35 J	1.0 U	1.0 U	1.0 U	0.37 J	1.0 U					
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Xylenes (total)	ug/L	1000	3.0 U	2.0												

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

#### Notes:

Notes:

- < - Less than amount shown.
- > - Greater than amount shown

> - Greater than amount shown.  
I - Estimated concentration

II - Not detected at the associated reporting limit

U - Not detected at

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S	MW-44S		
Sample ID:	14737-070913-03	14737-070913-04	14737-101513-08	14737-020714-16	14737-042414-40	14737-072414-01	14737-101714-15	14737-011315-01	14737-033115-044	14737-040513-20	14737-040814-08	14737-032715-037	14737-040513-21	14737-040814-09	14737-032715-035	14737-032715-036	14737-040814-09	14737-032715-035	14737-032715-036	14737-040814-09	14737-032715-035	14737-032715-036
Sample Date:	NJDEP Groundwater	7/9/2013	7/9/2013	10/15/2013	Duplicate	2/7/2014	4/24/2014	7/24/2014	10/17/2014	1/13/2015	3/31/2015	4/5/2013	4/8/2014	3/27/2015	4/5/2013	4/8/2014	3/27/2015	4/5/2013	4/8/2014	3/27/2015	4/5/2013	
Parameters	Units	Quality Criterion																				
<b>Volatiles</b>																						
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	1.0 U	0.55 J	0.18 J	1.0 U	1.0 U	0.50 J	0.72 J	0.69 J										
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,2-Dichloropropane	ug/L	1	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U								
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U								
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	0.19 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
cis-1,3-Dichloropropene	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Ethylbenzene	ug/L	700	1.0 U	0.31 J	1.0 U	0.11 J</																

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-45S	MW-45S	MW-45S	MW-45S	MW-46D	MW-46D	MW-46D	MW-46I	MW-46I	MW-46I	MW-46S	MW-46S	MW-46S	MW-47D	MW-47D	MW-47D	MW-47I
Sample ID:	14737-040513-22	14737-040814-10	14737-032715-034	14737-040413-05	14737-042514-47	14737-033115-042	14737-040413-04	14737-042514-46	14737-033115-041	14737-040413-03	14737-041114-14	14737-033015-057	14737-041013-49	14737-041714-20	14737-032715-031	14737-041013-47	
Sample Date:	4/5/2013	4/8/2014	3/27/2015	4/4/2013	4/25/2014	3/31/2015	4/4/2013	4/25/2014	3/31/2015	4/4/2013	4/11/2014	3/30/2015	4/10/2013	4/17/2014	3/27/2015	4/10/2013	
<b>Parameters</b>																	
<b>Volatiles</b>	Units	NJDEP Groundwater Quality Criterion															
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	50	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20	
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.81 J	
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.8	
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.45 J	
Xylenes (total)	ug/L	1000	3														

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-47I	MW-47I	MW-47S	MW-47S	MW-47S	MW-48D	MW-48D	MW-48D	MW-48I	MW-48I	MW-48I	MW-48S	MW-48S	MW-49D	MW-49D	
Sample ID:	14737-041714-18	14737-032715-032	14737-041013-48	14737-041714-19	14737-032715-033	14737-041013-46	14737-042214-27	14737-032715-030	14737-041013-45	14737-042214-26	14737-032715-028	14737-041013-44	14737-041714-25	14737-032715-029	14737-010713-02	14737-040813-34
Sample Date:	4/17/2014	3/27/2015	4/10/2013	4/17/2014	3/27/2015	4/10/2013	4/22/2014	3/27/2015	4/10/2013	4/22/2014	3/27/2015	4/10/2013	4/27/2015	4/17/2014	3/27/2015	4/8/2013
<b>Parameters</b>																
<b>Volatiles</b>																
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	1.0 U	1.1	
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.63 J	1.0 U	
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.82 J	
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 J	
cis-1,2-Dichloroethene	ug/L	70	28	16	20	25	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.27 J	0.54 J	
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	1	1.6	1.0	1.4	0.71 J	0.48 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.2	2.2	
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	100	0.86 J	0.20 J	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18 J	
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethene	ug/L	1	3.3	1.9	2.5	2.4	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.7	1.9	
Vinyl chloride	ug/L	1	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	1000	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	
Total VOCs	ug/L	-	33.97	19.1	25.3	28.53	15.78	ND	ND	ND	0.12	ND	ND	0.78	ND	
<b>Metals</b>																
Arsenic	ug/L	3	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	3.1	2.5 U	2.5 UJ	2.3 J	
Copper	ug/L	1300	-	-												

## Notes:

< - Less than amount shown.

> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated

UJ - Not detected; associated reporting limit is estimated.  
Not applicable

- Not applicable.

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-49D	MW-49D	MW-49D	MW-49D	MW-49D	MW-49D	MW-49D	MW-49D	MW-49I							
Sample ID:	14737-070913-10	14737-101513-12	14737-020614-09	14737-042214-28	14737-072514-14	14737-101614-09	14737-011315-11	14737-032715-027	14737-010713-03	14737-040813-31	14737-070913-11	14737-101613-20	14737-020614-10	14737-042214-30	14737-072514-12	14737-101614-10
Sample Date:	7/9/2013	10/15/2013	2/6/2014	4/22/2014	7/25/2014	10/16/2014	1/13/2015	3/27/2015	1/7/2013	4/8/2013	7/9/2013	10/16/2013	2/6/2014	4/22/2014	7/25/2014	10/16/2014
<b>Parameters</b>		<b>Units</b>	<b>NJDEP Groundwater Quality Criterion</b>													
<b>Volatiles</b>																
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1	0.44 J	0.27 J	0.32 J	0.32 J	0.37 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	3	0.72 J	0.48 J	1.0 U	0.44 J	0.53 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	50	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U				
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2	0.83 J	1.0 U	0.65 J	0.53 J	0.69 J	0.52 J	0.29 J	0.50 J	1.0 U					
1,2-Dichloropropane	ug/L	1	0.40 J	1.0 U	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U							
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1	1.0 U	1.0 U	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.12 J	1.3	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.52 J	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	70	0.45 J	1.0 U	0.26 J	0.27 J	0.30 J	0.13 J	0.10 J	1.0 U						
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	0.56 J	1.0 U	0.44 J	0.37 J	0.24 J	0.24 J	0.21 J	0.27 J	1.0 U					
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39 J
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U				
Tetrachloroethene	ug/L	1	2.0	0.84 J	0.55 J	1.5	1.0	0.82 J	0.81 J	0.83 J	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1	1.4	0.88 J	0.76 J	0.93 J	0.76 J	0.74 J	0.60 J	0.80 J	0.64 J	0.61 J	0.38 J	1.0 U	0.74 J	0.55 J
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1000	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 J	2.0 U	2.0 U	2.0 U</

Notes:

< - Less than amount shown.

< - Less than amount shown.  
> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated

UJ - Not detected; associated reporting limit is estimated

UJ - Not detected  
- Not applicable.

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

## Notes:

< - Less than amount shown.

> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated

UJ - Not detected; associated report

- Not applicable.

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-50D	MW-50D	MW-50D	MW-50D	MW-50D	MW-50D	MW-50D	MW-50D	MW-50I							
Sample ID:	14737-070913-14	14737-101613-16	14737-020614-12	14737-041714-21	14737-072514-15	14737-101714-16	14737-011315-07	14737-033015-050	14737-010713-09	14737-040813-29	14737-070913-15	14737-101613-19	14737-020614-14	14737-041714-22	14737-041714-23	14737-072514-16
Sample Date:	7/10/2013	10/16/2013	2/6/2014	4/17/2014	7/25/2014	10/17/2014	1/13/2015	3/30/2015	1/7/2013	4/8/2013	7/10/2013	10/16/2013	2/6/2014	4/17/2014	4/17/2014	7/25/2014
<b>Parameters</b>																
Units	NJDEP Groundwater	Quality Criterion														Duplicate
<b>Volatiles</b>																
ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
1,1,2,2-Tetrachloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
1,1,2-Trichloroethane	ug/L	50	0.48 J	1.0 U	0.55 J	0.39 J	0.61 J	1.0	1.2	1.0 U	0.38 J	0.30 J	1.0 U	1.0 U	1.0 U	0.31 J
1,1-Dichloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
1,1-Dichloroethene	ug/L	9	1.0 U	1.0 U	0.44 J	1.0 U										
1,2,4-Trichlorobenzene	ug/L	600	1.0 U	1.0 U	2.0	1.4	1.2	0.75 J	0.90 J	0.86 J	1.0					
1,2-Dichlorobenzene	ug/L	2	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U									
1,2-Dichloroethane	ug/L	1	0.34 J	1.0 U	1.0 U	1.0 U	0.32 J	1.0 U								
1,2-Dichloropropane	ug/L	600	1.0 U	0.58 J	1.0 U	1.0 U	0.24 J	0.30 J	1.0 U	9.5	7.7	7.9	4.6	5.0	4.4	1.5
1,3-Dichlorobenzene	ug/L	75	1.0 U	0.71 J	1.0 U	1.0 U	0.89 J	0.52 J	1.0 U	48	30	29	7.2	7.3	6.2	6.8
1,4-Dichlorobenzene	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U					
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U					
Acetone	ug/L	1	1.0 U	0.70 J	1.0 U	2.9	0.48 J	1.0 U	1.0 U	530	15	7.8	200	21	8.8	9.3
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Chlorobenzene	ug/L	50	1.0 U	1.4	1.0 U	2.4	1.4	0.17 J	1.0 U	40	44	33	18	41	44	9.5
Chloroethane	ug/L	5	1.0 U	1.0 U	53	14	16	8.4	10	5.4	5.8					
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
cis-1,2-Dichloroethene	ug/L	70	9.0	5.4	3.0	2.2	0.88 J	1.0	0.41 J	0.51 J	0.41 J	0.63 J	0.92 J	1.0 U	1.0 U	0.36 J
cis-1,3-Dichloropropene	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.6	0.61 J	1.0 U	1.7	0.74 J	0.41 J	0.43 J					
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	0.50 J	1.0 U	1.0 U	1.0 U	2.0	0.15 J	1.0 U	1.4	0.62 J	1.0 U	1.0 U
Hexane	ug/L	30	1.0 U	1.0 U	0.76 J	1.0 U										
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.2	1.0 U	0.43 J	1.0 U	1.0 U	1.0 U	1.0 U					
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Toluene	ug/L	600	1.0 U	1.0 U	1.6	0.48 J	0.32 J	0.30 J	0.30 J	0.23 J	0.24 J					
trans-1,2-Dichloroethene	ug/L	100	1.0 U	0.35 J	0.38 J	0.65 J	0.62 J	0.63 J	0.61 J	0.98 J	0.45 J	0.32 J	1.0 U	1.0 U	0.25 J	0.25 J
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U					
Trichloroethene	ug/L	1	10	5.9	5.6	3.6	1.9	1.7	1.5	1.1	1.0 U					

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Notes:

- < - Less than amount shown
- > - Greater than amount shown
- J - Estimated concentration
- U - Not detected at the assay
- UJ - Not detected; associated
- Not applicable

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-51D	MW-51D	MW-51I	MW-51I	MW-51I	MW-51S	MW-51S	MW-51S	MW-51S	MW-52D	MW-52D	MW-52D	MW-52D	MW-52I	MW-52I	MW-52I
Sample ID:	14737-041714-15	14737-033015-053	14737-040413-06	14737-041714-16	14737-033015-054	14737-040413-07	14737-041714-17	14737-033015-055	14737-040413-056	14737-040513-13	14737-040814-01	14737-040814-02	14737-033015-062	14737-040513-14	14737-040814-03	14737-033015-061
Sample Date:	4/17/2014	3/30/2015	4/4/2013	4/17/2014	3/30/2015	4/4/2013	4/17/2014	3/30/2015	4/5/2013	4/8/2014	4/8/2014	4/8/2014	3/30/2015	4/5/2013	4/8/2014	3/30/2015
<b>Parameters</b>																
<b>Volatiles</b>	Units	NJDEP Groundwater	Quality Criterion													
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	0.37 J	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	0.15 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1	0.24 J	0.58 J	1.0 U	1.0 U	0.45 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1	1.0 U	1.0 U	0.11 J	1.0 U	0.10 J	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1000	2.0 U	2.0 U												

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

Sample Location:	MW-52S	MW-52S	MW-52S	MW-53I	MW-54D	MW-54D	MW-54I	MW-54I	MW-54I	MW-54S						
Sample ID:	14737-040513-15	14737-040814-04	14737-033015-060	14737-010713-05	14737-040913-36	14737-070913-09	14737-101413-02	14737-042514-44	14737-072414-09	14737-101514-04	14737-040413-01	14737-040814-11	14737-040413-09	14737-040814-12	14737-033015-058	14737-040413-02
Sample Date:	4/5/2013	4/8/2014	3/30/2015	1/7/2013	4/9/2013	7/9/2013	10/14/2013	4/25/2014	7/24/2014	10/15/2014	4/4/2013	4/8/2014	4/4/2013	4/8/2014	3/30/2015	4/4/2013
<b>Parameters</b>																
<b>Volatiles</b>	Units	NJDEP Groundwater Quality Criterion														
1,1,1-Trichloroethane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	1.0 U	0.29 J	1.0 U	1.0 U										
1,2-Dichloroethane	ug/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	50	0.22 J	0.26 J	1.0 U	1.0 U										
Chloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	0.45 J	0.99 J	0.88 J	1.0 U	1.0 U									
cis-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.5	2.7	1.4	0.95 J	1.6
Ethylbenzene	ug/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexane	ug/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 J	2.2	0.28 J	0.72 J	2.0
Toluene	ug/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1	0.22 J	0.28 J	1.0 U	1.0 U										
Vinyl chloride	ug/L	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1000	3.0 U	2.0 U	2.0 U	3.0 U										

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

## Notes:

< - Less than amount shown.

> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated  
III - Not detected; associated non-

UJ - Not detected; associated reporting limit is estimated  
- Not applicable

- Not applicable.

**TABLE 1**

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

## Notes:

< - Less than amount shown.

> - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated range

UJ - Not detected; associated reporting limit is estimated  
Not applicable

- Not applicable

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS  
2013 THROUGH 2015 SAMPLING EVENTS  
JIS LANDFILL SITE**

<b>Sample Location:</b>	<b>PW-2-115</b>	
<b>Sample ID:</b>	<b>14737-032515-PW2-115</b>	
<b>Sample Date:</b>	<b>3/25/2015</b>	
<b>Parameters</b>	<b>Units</b>	<b>NJDEP Groundwater Quality Criterion</b>
<b>Volatiles</b>		
1,1,1-Trichloroethane	ug/L	30
1,1,2,2-Tetrachloroethane	ug/L	1
1,1,2-Trichloroethane	ug/L	3
1,1-Dichloroethane	ug/L	50
1,1-Dichloroethene	ug/L	1
1,2,4-Trichlorobenzene	ug/L	9
1,2-Dichlorobenzene	ug/L	600
1,2-Dichloroethane	ug/L	2
1,2-Dichloropropane	ug/L	1
1,3-Dichlorobenzene	ug/L	600
1,4-Dichlorobenzene	ug/L	75
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	-
Acetone	ug/L	6000
Benzene	ug/L	1
Bromodichloromethane	ug/L	1
Bromoform	ug/L	4
Bromomethane (Methyl bromide)	ug/L	10
Carbon tetrachloride	ug/L	1
Chlorobenzene	ug/L	50
Chloroethane	ug/L	5
Chloroform (Trichloromethane)	ug/L	70
Chloromethane (Methyl chloride)	ug/L	-
cis-1,2-Dichloroethene	ug/L	70
cis-1,3-Dichloropropene	ug/L	1
Cyclohexane	ug/L	-
Dibromochloromethane	ug/L	1
Dichlorodifluoromethane (CFC-12)	ug/L	1000
Ethylbenzene	ug/L	700
Hexane	ug/L	30
Methylene chloride	ug/L	3
Tetrachloroethene	ug/L	1
Toluene	ug/L	600
trans-1,2-Dichloroethene	ug/L	100
trans-1,3-Dichloropropene	ug/L	1
Trichloroethene	ug/L	1
Vinyl chloride	ug/L	1
Xylenes (total)	ug/L	1000
Total VOCs	ug/L	-
		29.36
<b>Metals</b>		
Arsenic	ug/L	3
Copper	ug/L	1300
Iron	ug/L	300
Manganese	ug/L	50
Potassium	ug/L	-
		7640
<b>General Chemistry</b>		
Ammonia	ug/L	3000
Chloride	ug/L	250000
Nitrate (as N)	ug/L	10000
Nitrite (as N)	ug/L	1000
Orthophosphate	ug/L	-
<b>Field Parameters</b>		
Conductivity, field	umhos/cm	-
Dissolved oxygen (DO), field	ug/L	-
Ferrous iron	ug/L	-
Iron	ug/L	300
Oxidation reduction potential (ORP), field	millivolts	-
pH, field	s.u.	-
Temperature, field	Deg C	-
Turbidity	NTU	-

Notes:

&lt; - Less than amount shown.

&gt; - Greater than amount shown.

J - Estimated concentration.

U - Not detected at the associated reporting limit.

UJ - Not detected; associated reporting limit is estimated.

- Not applicable.

TABLE 2

**SUMMARY OF PROPERTIES INCLUDED IN CEA  
JIS LANDFILL SUPERFUND SITE  
SOUTH BRUNSWICK, NEW JERSEY**

<b>Block</b>	<b>Lot</b>	<b>Property Address</b>	<b>Owner Name</b>	<b>Owner Address</b>	<b>Date of Tax Map</b>
<b>Municipality of South Brunswick</b>					
17.01	9.06	999 Cranbury So River Rd	J.I.S. Industrial Service Co.	PO Box 318, Jamesburg, NJ 08831	2006
17.01	10	1015 CRANBURY SO RIVER RD	KORDUS, ANNE S. (EST. OF)	1015 CRANBURY SO RIVER RD, JAMESBURG, NJ 08831	2007
<b>Municipality of Monroe</b>					
78	16	CRANBURY-SO RIVER RD 228	TERRANOVA PROPERTIES LLC	228 CRANBURY-SOUTH RIVER, MONROE TOWNSHIP, NJ 08831	2007
81	1	Docks Corner Road	Crown Incorporation	660 Plainsboro Rd, Plainsboro, NJ 08536	2007
81	2	Docks Corner Road	Protinick, Michael & Anna D	330 Dey Rd, Cranbury, NJ 08512	2007
81	8	Docks Corner Road	Herbert Harold D et al	184 So Moetz Drive, Milltown, NJ 08850	2007
81	14	Rhode Hall Road	Holy Trinity Church of Helmetta	100 Main St, Helmetta, NJ 08828	2007
81	15.01	Rhode Hall Road	Pirog Eugene P M.D.	16 Hiland Drive, Hillsborough, NJ 08844	2007
81	15.02	Rhode Hall Road	Pirog Eugene P M.D.	16 Hiland Drive, Hillsborough, NJ 08844	2007
81	19	DOCKS CORNER ROAD	ZAKRZEWSKI, JOSEPH C.	237 DAYTON ROAD, JAMESBURG, NJ 08831	2007
81	18.02	DOCKS CORNER ROAD	WOODHULL, THERESA	235-B DAYTON ROAD, JAMESBURG, NJ 08831	2007
81	17	DOCKS CORNER ROAD	ST. JOHN'S BAPTIST CHURCH	24 LAKE ST., JAMESBURG, NJ 08831	2007
81	16.01	DOCKS CORNER ROAD	HORZEMPA, WALTER & DONNA V.	59 DAYTON ROAD, JAMESBURG, NJ 08831	2007
81	16.02	DOCKS CORNER RD. 57	DICKISON, SUSAN & ANCMON, PAULA	57 DAYTON ROAD, JAMESBURG, NJ 08831	2007
81	16.03/16.04	DOCKS CORNER ROAD	RAPP, ROBERT & SHERRI S.	55 DAYTON ROAD, JAMESBURG, NJ 08831	2007
83	4	Bordentown Turnpike	Iadevaia, Vincent	234 Rhode Hall Road, Jamesburg, NJ 08831	2005
83	5.03	203 Rhode Hall Road	Demarco, Vera	203 Rhode Hall Road, Monroe, NJ, 08831	2005
83	12.03	BORDENTOWN TURNPIKE 205	SMITH JR., MICHAEL & DIANE	205 BORDENTOWN TURNPIKE	2005
83	12.04	Bordentown Turnpike 203	Smith, Michael	203 Bordentown Turnpike, Monroe, NJ 08831	2005
84	19	Bordentown Turnpike	Iadevaia Tommaso & Son Contr	234 Rhode Hall Road, Jamesburg, NJ 08831	1992
84	20.01	224 Bordentown Turnpike	Guenther Howard	63 Cairns Place, Belle Mead, NJ 08502	1992
84	21.01	218 Bordentown Turnpike	Hluchy, Brian	218 Bordentown Turnpike, Monroe, NJ 08831	1992
95	3.08	33 Cherry Blossom Drive	Fodor, Bruce A & Catherine	33 Cherry Blossom Drive, Monroe, NJ 08831	1998
95	3.09	31 Cherry Blossom Drive	Parisen, Robert W. & Susan A.	31 Cherry Blossom Drive, Monroe, NJ 08831	1998
95	3.10	29 Cherry Blossom Drive	Szczecina, Christine C	29 Cherry Blossom Drive, Monroe, NJ 08831	1998
95	3.11	2 Cherry Blossom Drive West	Keri, Craig J. & Jean M.	2 Cherry Blossom Drive West, Monroe, NJ 08831	1998
95	3.12	17 Mott Avenue	Casarella, James E. & Deborah	17 Mott Avenue, Monroe, NJ 08831	1998
95	3.13	19 Mott Avenue	Williams, Arthur & Patricia	19 Mott Avenue, Monroe, NJ 08831	1998
95.01	19	17 CHERRY BLOSSOM DRIVE	SWANNER,L. DOUGLAS & DEBRA O.	17 CHERRY BLOSSOM DRIVE	1998
95.01	20	19 CHERRY BLOSSOM DRIVE	ZARCO, NELSON P. & MARIA L.	19 CHERRY BLOSSOM DRIVE	1998
95.01	21	21 CHERRY BLOSSOM DRIVE	LUCARELLI,SAMUEL JR. & LINDA C.	21 CHERRY BLOSSOM DRIVE	1998
95.02	25	30 Cherry Blossom Drive	Wankmueller, Cheryl & Donald	30 Cherry Blossom Drive, Monroe, NJ 08831	1998
<b>Municipality of Jamesburg</b>					
67	1.01	313 Rhode Hall Road	Kowaleski, Veronica	313 Rhode Hall Rd, Jamesburg, NJ 08831	2005
67	2	131 Rhode Hall Road	Iadevia, Vincent	131 Rhode Hall Rd, Jamesburg, NJ 08831	2005
68	1	39B Quail Run	TOMARO, CHRISTINE	39B Quail Run, Jamesburg, NJ 08831	2005
68	1	37B Quail Run	MENDOCKER, ROSS	37B Quail Run, Jamesburg, NJ 08831	2005
68	2	310 Rhode Hall Road	Whitacre, James T & Xenia D	310 Rhode Hall Road, Jamesburg, NJ 08831	2005
68	3.01	312 Rhode Hall Road	Giudice, Kenneth & Kellyann	1564 Passaic Place, North Brunswick, NJ 08902	2005
68	3.02	314 Rhode Hall Road	Schneider, S. & E.	807 Georges Road, Monmouth Junction, NJ 08852	2005
68	3.03	102 Colletti Court	Mustillo, Corrado & Maria	18 Fresh Ponds Road, East Brunswick, NJ 08816	2005
68	3.04	105 Colletti Court	Egri, Peter	491 Route 33, Box 116C, Englishtown, NJ 07726	2005
68	3.05	104 Colletti Court	ECKENROTH,ELIZABETH R& SMITH,TERESA	860 SE 80TH STREET, OCALA, FL 34480	2005
68	3.06	103 Colletti Court	Quigley, Kevin & May	31 Keswick Road, East Windsor, NJ 08520	2005
68	3.07	101 Colletti Court	Giancola, Fernando	3 Lonnie Court, East Brunswick, NJ 08816	2005
68	7	29 Dayton Road	Fadden, Donald & Nancy	29 Dayton Road, Jamesburg, NJ 08831	2005
68	9.01	33 Dayton Road	Hulick, Jeffrey M & Dowd-Hulick, Carol	33 Dayton Road, Jamesburg, NJ 08831	2005
68	10	43 Dayton Road	Renz, Robert Linda	43 Dayton Road, Jamesburg, NJ 08831	2005
68	11.01	Colletti Terrace	Colletti Terrace LLC	10 Independence Place, South River, NJ 08882	2005
68	11.02	Colletti Terrace	Colletti Terrace LLC	10 Independence Place, South River, NJ 08882	2005
68	12	51 Dayton Road	Halasz, Gregory A.	42 Dayton Road, Jamesburg, NJ 08831	2005
68	13.04	55 Dayton Road	Rapp, Cheri S & Robert	55 Dayton Road, Jamesburg, NJ 08831	2005
68	13.05	53 Dayton Road	Halasz, Gregory A.	42 Dayton Road, Jamesburg, NJ 08831	2005

TABLE 3

**CEA LONGEVITY CALCULATIONS**  
**JIS LANDFILL SUPERFUND SITE**  
**SOUTH BRUNSWICK, NEW JERSEY**

<b>Well Name</b>	<b>Chemical of Concern <sup>(1)</sup></b>	<b>New Jersey Groundwater</b>		<b>Present Quality Standard</b>	<b>Concentration (March 2015)</b>	<b>Loglinear Regression Statistics</b>			<b>Calculated time to reach target <sup>(2)</sup></b>		
		<b>Number of Samples (1998-2015)</b>	<b>Percent Nondetect</b>			<b>P-value</b>	<b>R-square</b>	<b>Slope (k)</b>	<b>In(C/C<sub>0</sub>)</b>	<b>Days</b>	<b>Years</b>
MW-22I	Trichloroethene <sup>(3)</sup>	33	0	1 µg/L	3.3 µg/L	<1E-15	0.93	-0.000231	-1.194	5168	14.2
MW-23D	Benzene <sup>(4)</sup>	49	0%	1 µg/L	1.4 µg/L	<1E-15	0.85	-0.000292	-0.336	1152	3.2
MW-30D	Benzene	28	0%	1 µg/L	2.4 µg/L	<1E-15	0.93	-0.000438	-0.875	2001	5.5
MW-34D	Benzene <sup>(5)</sup>	48	4.2%	1 µg/L	1.7 µg/L	<1E-15	0.88	-0.000247	-0.531	2148	5.9
	Vinyl chloride <sup>(6)</sup>	48	12.5%	1 µg/L	1.4 µg/L	0.063	0.06	-0.000038	< regression not statistically significant >		
MW-60D	Benzene	9	0%	1 µg/L	8.4 µg/L	3E-06	0.96	-0.000285	-2.128	7470	<b>20.5</b>
	Chlorobenzene	9	0%	50 µg/L	49 µg/L	0.737	0.02	4.70E-06	< regression not statistically significant >		
	Vinyl chloride	9	33.3%	1 µg/L	1.0 U µg/L	0.028	0.52	0.000291	0.000	0	0.0

## Notes:

(1) -- Only chemicals observed above the New Jersey Groundwater Quality Standard (GWQS) in the past 2 years (2014 or 2015) are listed.

(2) -- Time since last sampling event (March 25-26, 2015).

(3) -- Regression performed excluding 2 low outliers (in Dec 1998 and Jun 2005).

(4) -- Regression performed excluding 3 initial high outliers (in Dec 1998, Jan 1999 and May 1999).

(5) -- Regression performed excluding 2 initial high outliers (in Sep & Dec 1999) and 2 later low (non-detect) outliers (in Jun 2001 and Jun 2009).

(6) -- Regression performed excluding 3 early low (non-detect) outliers (in Jun & Dec 2001 and Sep 2002).

1.0 U -- Not detected above the indicated detection limit.

**TABLE 4**

**BIOSPARGE SYSTEM SHUTDOWN SUMMARY  
JIS LANDFILL SUPERFUND SITE  
SOUTH BRUNSWICK, NEW JERSEY**

---

<b>Date/time of shutdown</b>	<b>Date/time of startup</b>	<b>Reason for shutdown</b>
------------------------------	-----------------------------	----------------------------

**2012**

1/21/12 @ 09:35	1/23/12 @ 13:00	Power outage
1/30/12 @ 13:00	2/2/12 @ 15:07	TV Camera wells
6/5/12 @ 00:05	6/15/12 @11:00	Sensor error copresser

Note: System was down 10 days due to faulty temp sonor

7/2/12 @ 07:40	7/2/12 @ 15:00	Cleaning of wells
7/3/12 @ 07:50	7/3/12 @12:25	Cleaning of wells
7/5/12 @ 08:00	7/6/12 @ 12:00	Cleaning of wells
7/7/12 @ 13:45	7/25/12 @ 15:25	High temp alarm

Also had Summit dillers adding Nu-well to injection wells to rehabilitate the screens

9/1/12 @ 18:34	9/4/12 @ 10:00	Unkown
10/7/12 @12:40	10/8/12 @ 10:00	Power failure
10/28/12 @ 10:00	11/7/12 @ 14:30	Hurrican Sandy
11/13/12 @ 08:53	11/16/12 @ 10:10	Unkown
11/27/12 @ 08:05	11/30/12 @ 14:35	Power outage

**2013**

2/4/13 @ 02:30	2/4/13 @ 14:55	Power outage
2/25/13 @ 09:45	2/25/13 @ 11:20	Maintenance
4/10/13 @ 07:50	4/11/13 @ 08:00	Power outage
8/23/13 @13:00	8/25/13 @ 08:25	Element 2 alarm
9/17/13 @ 01:15	9/21/13 @ 08:05	Power Failure

**TABLE 4**

**BIOSPARGE SYSTEM SHUTDOWN SUMMARY**  
**JIS LANDFILL SUPERFUND SITE**  
**SOUTH BRUNSWICK, NEW JERSEY**

---

<b>Date/time of shutdown</b>	<b>Date/time of startup</b>	<b>Reason for shutdown</b>
<b>2014</b>		
1/12/14 @ 03:00	1/17/14 @ 10:35	Low temp alarm
7/2/14 @ 21:15	7/11/14 @ 11:08	High temp alarm
7/15/14 @ 12:30	7/16/14 @10:35	High temp alarm
8/28/14 @ 10:00	8/28/14 @ 15:35	Maintenance
10/19/14 @ 13:38	10/21/14 @ 11:30	Power Outage
11/1/14 @ 18:52	11/3/14 @ 08:00	Compressor alarm
12/24/14 @ 18:30	12/31/14 @ 12:40	Unkown
<b>2015</b>		
No shutdowns as of date of report		

## Appendix A

### Historical CEA Correspondence/Documents



## State of New Jersey

CHRIS CHRISTIE  
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN  
Commissioner

KIM GUADAGNO  
Lt. Governor

Bureau of Case Management  
401-05F  
P.O. Box 420  
Trenton, NJ 08625-0420  
Phone #: 609-633-1455  
Fax #: 609-633-1454

Mr. Chris Young  
Demaximis, Inc.  
1125 South Cedar Crest Blvd.  
Suite 202  
Allentown, PA 18103

May 6, 2013

### Classification Exception Area Approval

Re: JIS Landfill Superfund Site  
Rte 535 (Cranbury-S. River Rd)  
South Brunswick Twp., Middlesex County  
SRP PI# 010911  
Activity Number Reference: RPC000002

Dear Mr. Young,

The New Jersey Department of Environmental Protection (Department) has completed a review of the Documentation in Support of Classification Exception Area for Groundwater (CEA documentation) received on August 2, 2011 due to exceedences of Groundwater Quality Standards for Class IIA aquifers (see attached figure for CEA boundary information). The Department has determined that the CEA documentation is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements. A CEA is established as an institutional control effective the date of this letter. The proposed public notification letter is acceptable with the addition of requirements for Well Restriction Areas (WRA) outlined below.

Since ground water quality data indicates exceedance of contaminants above the Primary Drinking Water Standards, and the designated uses of Class IIA aquifers include potable use, the CEA established for this site is also a WRA. The extent of the WRA coincides with the boundaries of the CEA. WRA requirements include: double casing of new wells, annual sampling of new potable wells and the evaluation of any proposed production wells.

In accordance with State requirements, the Performing Parties Group is required to prepare and submit to the Department, Bureau of Case Management, a remedial action protectiveness certification biennially, with the first biennial certification due on May 6, 2015. The form available on the Department's website at [www.nj.gov/dep/srp/srra/forms](http://www.nj.gov/dep/srp/srra/forms) may be used, or an equivalent.

If you require copies of Department Guidance Documents or applications, many of these are available on the internet at <http://www.state.nj.us/dep/srp>. If you have any questions regarding this matter, please contact me at (609)292-7406 or Erica.Bergman@dep.state.nj.us.

Sincerely,



Erica Bergman  
Bureau of Case Management

cc: Irvin Freilich, Esq.  
Ashley Wiedemer, EPA  
Erica Bergman, BCM  
Division of Watershed Mgmt.  
Bureau of Water Allocation  
Environmental Claims Admin.



## New Jersey Department of Environmental Protection

Site Remediation Program

### CLASSIFICATION EXCEPTION AREA / WELL RESTRICTION AREA (CEA/WRA) FACT SHEET FORM

Date Stamp  
(For Department use only)

#### SECTION A. SITE INFORMATION

Site Name: JIS Landfill Site

Program Interest (PI) Number(s): 010911

Case Tracking Number(s) for this submission: 44671

**This form must be attached to the Cover / Certification Form  
if not submitted through the RIR Online Service**

1. Indicate the reason for submission of this form (see *instructions*):

New CEA       Revise CEA       Reestablish CEA       Existing CEA with no changes  
 CEA for historic fill       CEA lift/removal

If you are submitting this form for an existing CEA provide the CEA Subject Item ID: RPC 000002

2. Indicate the type of ground water Remedial Action (RA):

Natural       Active       Final RA not yet selected

3. Is this form being submitted with a Remedial Action Permit (RAP) Form (for Soil or Ground Water)? ...  Yes     No

#### SECTION B. CEA COMPONENT INFORMATION

1. **Contaminant(s):** This CEA/WRA applies only to contaminants above applicable numeric values established by the [Ground Water Quality Standards](#) (GWQS), N.J.A.C. 7:9C, listed in the table below. Except for historic fill CEAs based on assumed ground water contamination, list the maximum contaminant value for all ground water data that could be representative of current conditions and is for any well or sampling point used to establish the CEA. The values listed below may or may not be appropriate for use in evaluating plume fate and transport. See form instructions.

Contaminant	Concentration <sup>(1)</sup>	GWQS <sup>(2)</sup>	SWQS <sup>(3)</sup>	GWSL <sup>(4)</sup>
Benzene	8.4	1		20
Trichloroethylene	3.0	1		2
Vinyl Chloride	1.4	1		1

Notes: <sup>(1)</sup> Maximum concentration in Micrograms Per Liter

<sup>(2)</sup> New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C

<sup>(3)</sup> [Surface Water Quality Standards](#), N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.

<sup>(4)</sup> Current NJDEP Vapor Intrusion Ground Water Screening Levels available at <http://www.nj.gov/dep/srp/guidance/vaporintrusion/>

Check if attaching an Addendum to list additional contaminants and associated information.

2. **CEA Boundaries:** Year of tax map used: 2007

For CEA revisions:  check if CEA Boundary has changed (See *instructions*)

check if Block and Lot numbers have changed (See *instructions*)

**List the Block(s) and Lot(s) included in the areal extent of the Classification Exception Area:**

Block(s)	Lot(s)	Check if off-site
		<input type="checkbox"/>

Block(s)	Lot(s)	Check if off-site
		<input type="checkbox"/>

Check if attaching an Addendum to list additional Blocks/Lots and associated information. See attached Table 1

Narrative description of proposed CEA:

See attached.

Name(s) of the affected Geologic Formation(s)/Unit(s): Old Bridge Aquifer

Direction of ground water flow: southeast (*If multiple water bearing zones exist within the CEA and/or there is no predominant flow direction, see instructions.*)

Ground Water Classification: IIA (*See instructions and GWQS for classification area information.*)

Vertical Depth of CEA: 130 (ft bgs) and \_\_\_\_\_ (msl).

Horizontal Extent of CEA: 2,760,000 Indicate units:  acres or  square feet

**3. Projected Term of CEA:** (*Based on modeling/calculations in the fate and transport description*)

Proposed Duration in Years: 21 Anticipated Expiration Date: 05/05/2036

or  Indeterminate (*Review instructions before selecting "Indeterminate."*)

**4. ATTACH AND/OR SUBMIT THE FOLLOWING:** (*see instructions for additional information*)

**Exhibit A: Site Location Maps** – USGS Quadrangle Map;

**Exhibit B: CEA Map and Cross Section Figure** – See N.J.A.C 7:26C- 7.3(c)1 and 2 and instructions regarding what to include on the map and the cross-section figure.

**Exhibit C: GIS Deliverables** – CEA Boundary Extent Map. The CEA Boundary Extent Map shall be submitted via email to [srpgis\\_cea@dep.nj.gov](mailto:srpgis_cea@dep.nj.gov). See the instructions for detailed GIS deliverable requirements.

For revisions, does the attached map differ from the CEA map on [NJ-GeoWeb](#)?  Yes  No  N/A

If "Yes or N/A," identify the format of the CEA Boundary Extent Map: .....  Shape File  CAD File

**SECTION C. CURRENT GROUND WATER USE DOCUMENTATION**

1. Indicate the year of the most recent well search completed per N.J.A.C. 7:26E-1.14: 2015
2. If this Fact Sheet form is for a revised CEA or an existing CEA with no changes, have new wells been installed since the CEA was established? .....  Yes  No  N/A
3. Are there any pumping wells (e.g., potable, industrial, irrigation or recovery wells) within the foot print of the CEA? .....  Yes  No

## SECTION D. WELL RESTRICTION INFORMATION

Certain well restrictions relevant to potable ground water use, such as "Double Case Wells", "Sample Potable Wells", and "Evaluate Production Wells", are consistently set within the boundaries of all CEAs established by the NJDEP in Class I and II-A areas (see instructions).

1. Are there any other site-specific well restrictions relevant to potable ground water use that should be set within or near the boundaries of the proposed CEA? .....  Yes  No

If "Yes", describe below any such site-specific well restrictions proposed for this CEA:

## SECTION E. PUBLIC NOTIFICATION REQUIREMENTS

1. Indicate which of the following entities have been notified pursuant to N.J.A.C. 7:26C-7.3(d). (check all that apply)

- Municipal and county clerk(s)
- Local, county or regional health department(s)
- Designated County Environmental Health Act agency (if applicable)
- County Planning Board
- Pinelands Commission (if applicable)
- Owners of real property overlying CEA foot print

2. **List of Names and Addresses** – List below and/or in an attachment, the names/addresses of all persons notified pursuant to N.J.A.C. 7:26C-7.3(d) based on the proposed CEA boundaries. If the site property owner differs from the person listed in Section F below, enter the site owner's name and address first in below table. See instructions for more information regarding address list and indicating if vapor intrusion was evaluated for properties over the CEA.

Check here if no volatile contaminants are in the CEA

Entity or Owner Name	Notification Address Used (include applicable block and lot overlying CEA if owner address differs from property address)	Date notification sent	Was property evaluated for vapor intrusion? Check if "Yes"
	See attached Table 1		<input type="checkbox"/>
			<input type="checkbox"/>

# **ADDENDUM**

## **Classification Exception Area / Well Restriction Area Fact Sheet Form**

## **Section B. CEA Component Information**

- 1. Contaminant(s):** This CEA/WRA applies only to contaminants above applicable numeric values established by the GWQS, N.J.A.C. 7:9C, listed in the table below. Except for historic fill CEAs based on assumed ground water contamination, list below the maximum contaminant value for all ground water data that could be representative of current conditions using any well or sampling point used to establish the CEA. The values listed below may or may not be appropriate for use in evaluating plume fate and transport. See form Instructions.

Notes: <sup>(1)</sup> Maximum concentration in Micrograms Per Liter

<sup>(2)</sup> New Jersey Ground Water Quality Standards. N.J.A.C. 7:9C

<sup>(3)</sup> Surface Water Quality Standards, N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.

**(4) Current NJDEP Vapor Intrusion Ground Water Screening Levels**

## 2. CEA Boundaries:

**Blocks(s) and Lot(s) included in the areal extent of the Classification Exception Area:**

Year of tax map used: \_\_\_\_\_ For CEA revisions, check here if Block and Lot numbers have changed:

TABLE 1

**SUMMARY OF PROPERTIES INCLUDED IN CEA  
JIS LANDFILL SUPERFUND SITE  
SOUTH BRUNSWICK, NEW JERSEY**

<b>Block</b>	<b>Lot</b>	<b>Property Address</b>	<b>Owner Name</b>	<b>Owner Address</b>	<b>Date of Tax Map</b>	<b>Date Notification Sent</b>	<b>Was Property Evaluated for Vapor Intrusion Check if "Yes"</b>
<b>Municipality of South Brunswick</b>							
17.01	9.06	999 Cranbury So River Rd	J.I.S. Industrial Service Co.	PO Box 318, Jamesburg, NJ 08831	2006	TBS	✓
17.01	10	1015 CRANBURY SO RIVER RD	KORDUS, ANNE S. (EST. OF)	1015 CRANBURY SO RIVER RD, JAMESBURG, NJ 08831	2007	TBS	✓
<b>Municipality of Monroe</b>							
78	16	CRANBURY-SO RIVER RD 228	TERRANOVA PROPERTIES LLC	228 CRANBURY-SOUTH RIVER, MONROE TOWNSHIP, NJ 08831	2007	TBS	✓
81	1	Docks Corner Road	Crown Incorporation	660 Plainsboro Rd, Plainsboro, NJ 08536	2007	TBS	✓
81	2	Docks Corner Road	Protinick, Michael & Anna D	330 Dey Rd, Cranbury, NJ 08512	2007	TBS	✓
81	8	Docks Corner Road	Herbert Harold D et al	184 So Moetz Drive, Milltown, NJ 08850	2007	TBS	✓
81	14	Rhode Hall Road	Holy Trinity Church of Helmetta	100 Main St, Helmetta, NJ 08828	2007	TBS	✓
81	15.01	Rhode Hall Road	Pirog Eugene P M.D.	16 Hiland Drive, Hillsborough, NJ 08844	2007	TBS	✓
81	15.02	Rhode Hall Road	Pirog Eugene P M.D.	16 Hiland Drive, Hillsborough, NJ 08844	2007	TBS	✓
81	19	DOCKS CORNER ROAD	ZAKRZEWSKI, JOSEPH C.	237 DAYTON ROAD, JAMESBURG, NJ 08831	2007	TBS	✓
81	18.02	DOCKS CORNER ROAD	WOODHULL, THERESA	235-B DAYTON ROAD, JAMESBURG, NJ 08831	2007	TBS	✓
81	17	DOCKS CORNER ROAD	ST. JOHN'S BAPTIST CHURCH	24 LAKE ST., JAMESBURG, NJ 08831	2007	TBS	✓
81	16.01	DOCKS CORNER ROAD	HORZEMPA, WALTER & DONNA V.	59 DAYTON ROAD, JAMESBURG, NJ 08831	2007	TBS	✓
81	16.02	DOCKS CORNER RD. 57	DICKISON, SUSAN & ANCMON, PAULA	57 DAYTON ROAD, JAMESBURG, NJ 08831	2007	TBS	✓
81	16.03/16.04	DOCKS CORNER ROAD	RAPP, ROBERT & SHERRI S.	55 DAYTON ROAD, JAMESBURG, NJ 08831	2007	TBS	✓
83	4	Bordentown Turnpike	Iadevia, Vincent	234 Rhode Hall Road, Jamesburg, NJ 08831	2005	TBS	✓
83	5.03	203 Rhode Hall Road	Demarco, Vera	203 Rhode Hall Road, Monroe, NJ, 08831	2005	TBS	✓
83	12.03	BORDENTOWN TURNPIKE 205	SMITH JR., MICHAEL & DIANE	205 BORDENTOWN TURNPIKE	2005	TBS	✓
83	12.04	Bordentown Turnpike 203	Smith, Michael	203 Bordentown Turnpike, Monroe, NJ 08831	2005	TBS	✓
84	19	Bordentown Turnpike	Iadevia Tommaso & Son Contr	234 Rhode Hall Road, Jamesburg, NJ 08831	1992	TBS	✓
84	20.01	224 Bordentown Turnpike	Guenther Howard	63 Cairns Place, Belle Mead, NJ 08502	1992	TBS	✓
84	21.01	218 Bordentown Turnpike	Hluchy, Brian	218 Bordentown Turnpike, Monroe, NJ 08831	1992	TBS	✓
95	3.08	33 Cherry Blossom Drive	Fodor, Bruce A & Catherine	33 Cherry Blossom Drive, Monroe, NJ 08831	1998	TBS	✓
95	3.09	31 Cherry Blossom Drive	Parisen, Robert W. & Susan A.	31 Cherry Blossom Drive, Monroe, NJ 08831	1998	TBS	✓
95	3.10	29 Cherry Blossom Drive	Szczecina, Christine C	29 Cherry Blossom Drive, Monroe, NJ 08831	1998	TBS	✓
95	3.11	2 Cherry Blossom Drive West	Keri, Craig J. & Jean M.	2 Cherry Blossom Drive West, Monroe, NJ 08831	1998	TBS	✓
95	3.12	17 Mott Avenue	Casarella, James E. & Deborah	17 Mott Avenue, Monroe, NJ 08831	1998	TBS	✓
95	3.13	19 Mott Avenue	Williams, Arthur & Patricia	19 Mott Avenue, Monroe, NJ 08831	1998	TBS	✓
95.01	19	17 CHERRY BLOSSOM DRIVE	SWANNER,L DOUGLAS & DEBRA O.	17 CHERRY BLOSSOM DRIVE	1998	TBS	✓
95.01	20	19 CHERRY BLOSSOM DRIVE	ZARCO, NELSON P. & MARIA L.	19 CHERRY BLOSSOM DRIVE	1998	TBS	✓
95.01	21	21 CHERRY BLOSSOM DRIVE	LUCARELLI,SAMUEL JR. & LINDA C.	21 CHERRY BLOSSOM DRIVE	1998	TBS	✓
95.02	25	30 Cherry Blossom Drive	Wankmueller, Cheryl & Donald	30 Cherry Blossom Drive, Monroe, NJ 08831	1998	TBS	✓
<b>Municipality of Jamesburg</b>							
67	1.01	313 Rhode Hall Road	Kowaleski, Veronica	313 Rhode Hall Rd, Jamesburg, NJ 08831	2005	TBS	✓
67	2	131 Rhode Hall Road	Iadevia, Vincent	131 Rhode Hall Rd, Jamesburg, NJ 08831	2005	TBS	✓
68	1	398 Quail Run	TOMARO, CHRISTINE	398 Quail Run, Jamesburg, NJ 08831	2005	TBS	✓
68	1	378 Quail Run	MENDOCKER, ROSS	378 Quail Run, Jamesburg, NJ 08831	2005	TBS	✓
68	2	310 Rhode Hall Road	Whitacre, James T & Xenia D	310 Rhode Hall Road, Jamesburg, NJ 08831	2005	TBS	✓
68	3.01	312 Rhode Hall Road	Giudice, Kenneth & Kellyann	1564 Passaic Place, North Brunswick, NJ 08902	2005	TBS	✓
68	3.02	314 Rhode Hall Road	Schneider, S. & E.	807 Georges Road, Monmouth Junction, NJ 08852	2005	TBS	✓
68	3.03	102 Colletti Court	Mustillo, Corrado & Maria	18 Fresh Ponds Road, East Brunswick, NJ 08816	2005	TBS	✓
68	3.04	105 Colletti Court	Egri, Peter	491 Route 33, Box 116C, Englishtown, NJ 07726	2005	TBS	✓
68	3.05	104 Colletti Court	ECKENROTH,ELIZABETH R & SMITH,TERESA	860 SE 80TH STREET, OCALA, FL 34480	2005	TBS	✓
68	3.06	103 Colletti Court	Quigley, Kevin & May	31 Keswick Road, East Windsor, NJ 08520	2005	TBS	✓
68	3.07	101 Colletti Court	Giancola, Fernando	3 Lonnie Court, East Brunswick, NJ 08816	2005	TBS	✓
68	7	29 Dayton Road	Fadden, Donald & Nancy	29 Dayton Road, Jamesburg, NJ 08831	2005	TBS	✓
68	9.01	33 Dayton Road	Hulick, Jeffrey M & Dowd-Hulick, Carol	33 Dayton Road, Jamesburg, NJ 08831	2005	TBS	✓
68	10	43 Dayton Road	Renz, Robert Linda	43 Dayton Road, Jamesburg, NJ 08831	2005	TBS	✓
68	11.01	Colletti Terrace	Colletti Terrace LLC	10 Independence Place, South River, NJ 08882	2005	TBS	✓
68	11.02	Colletti Terrace	Colletti Terrace LLC	10 Independence Place, South River, NJ 08882	2005	TBS	✓
68	12	51 Dayton Road	Halasz, Gregory A.	42 Dayton Road, Jamesburg, NJ 08831	2005	TBS	✓
68	13.04	55 Dayton Road	Rapp, Cheri S & Robert	55 Dayton Road, Jamesburg, NJ 08831	2005	TBS	✓
68	13.05	53 Dayton Road	Halasz, Gregory A.	42 Dayton Road, Jamesburg, NJ 08831	2005	TBS	✓

Notes:

TBS - To Be Sent

***Narrative description of proposed CEA:***

The CEA will encompass the JIS Site as well as areas southeast and downgradient of the Landfill roughly following the direction of Docks Corner Road, toward and crossing Rhode Hall Road, then shifting more easterly crossing Mott Avenue and Helmetta Road. At the Landfill, the CEA is approximately 1,000 feet wide. Downgradient of the Site, the bisparge system has resulted in a separation of the plume with a clean zone extending from approximately 500 feet downgradient of the Site to approximately 1,500 feet downgradient of the Site. Where reinitiated at the downgradient location, the CEA is approximately 1,000 feet, narrowing to approximately 300 feet at the Rhode Hall Road, until the point of termination approximately 300 feet east of Mott Avenue.



**New Jersey Department of Environmental Protection  
Site Remediation Program**

**REMEDIAL ACTION PROTECTIVENESS /  
BIENNIAL CERTIFICATION FORM – GROUND WATER**

LSRP

Subsurface Evaluator (UHOT)

Date Stamp  
(For Department use only)

**SECTION A. SITE NAME AND LOCATION**

Site Name: JIS Landfill

List all AKAs:

Street Address: 999 Cranbury South River Road (Route 535)

Municipality: South Brunswick (Township, Borough or City)

County: Middlesex Zip Code: 08831

Program Interest (PI) Number(s): 010911

Case Tracking Number(s):

Municipal Block and Lot Numbers of the entire Site:

Block 17.010 Lots 9.05 and 9.06

**SECTION B. FEES**

- Ground Water Remedial Action Protectiveness/Biennial Certification for a Remedial Action Permit (No fee)  
 Ground Water Remedial Action Protectiveness/Biennial Certification - Non-Remedial Action Permit \$375.00

**SECTION C. FEE BILLING CONTACT PERSON**

Changed Since Last Submission Effective Date of Change: \_\_\_\_\_

Business Name: demaximis, Inc

First Name of Contact: Chris Last Name of Contact: Young

Title: Technical Agent on Behalf of the JIS Performing Parties Group

Phone Number: (610) 435-1151 Ext.: \_\_\_\_\_ Fax: \_\_\_\_\_

Mailing Address: 1550 Pond Road

Municipality: Allentown State: PA Zip Code: 18104

Email Address: cyoung@demaximis.com

**SECTION D. CURRENT OWNER OF THE SITE**

Changed Since Last Submission Effective Date of Change: \_\_\_\_\_

If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section L), check box and proceed to next section.

Full Legal Name of the Owner: Jones Industrial Services Co.

First Name of Contact: Don Last Name of Contact: Jones

Title: \_\_\_\_\_

Phone Number: (732) 521-0910 Ext.: \_\_\_\_\_ Fax: (732) 527-3872

Mailing Address: PO Box 318

Municipality: Jamesburg State: NJ Zip Code: 08831

Email Address: \_\_\_\_\_

## SECTION E. CURRENT OPERATOR OF THE SITE

- Changed Since Last Submission      Effective Date of Change: \_\_\_\_\_  
 If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section L), check box and proceed to the next section.

Full Legal Name of the Operator: Jones Industrial Services Co.

First Name of Contact: Don      Last Name of Contact: Jones

Title: \_\_\_\_\_

Phone Number: (732) 521-0910      Ext.: \_\_\_\_\_      Fax: (732) 527-3872

Mailing Address: PO Box 318

Municipality: Jamesburg      State: NJ      Zip Code: 08831

Email Address: \_\_\_\_\_

## SECTION F. CURRENT LESSEE OF THE SITE

- Changed Since Last Submission      Effective Date of Change: \_\_\_\_\_  
 If same as Person Responsible for Monitoring the Protectiveness of the Remedial Action (Section L), check box and proceed to the next section.

Full Legal Name of the Lessee: Not applicable

First Name of Contact: \_\_\_\_\_      Last Name of Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Phone Number: \_\_\_\_\_      Ext.: \_\_\_\_\_      Fax: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Municipality: \_\_\_\_\_      State: \_\_\_\_\_      Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_

## SECTION G. REMEDIAL ACTION AND CEA/WRA INFORMATION

### 1. Type of Ground Water Remediation

#### a. Monitored Natural Attenuation

- 1) Has ground water sampling been conducted at the site since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveness/Biennial Certification Form, whichever is more recent? .....  Yes  No

If "Yes," attach a summary of the ground water sampling results to this form, including all historical ground water sampling data for the site.

- 2) Do the results of the ground water sampling demonstrate that contaminant concentrations have decreased to or below the applicable Ground Water Quality Standards for two consecutive sampling events accounting for seasonal fluctuation? .....  Yes  No  N/A

If "Yes", then submit a Ground Water Remedial Action Permit Application for a termination or a request for a CEA/WRA lift for sites that do not currently have a Ground Water Remedial Action Permit and skip the rest of this section.

- 3) Do the results of the ground water sampling indicate that there is a decreasing trend of contaminant concentrations in the ground water? .....  Yes  No

If "No," is the ground water plume considered stable? .....  Yes  No

If "No," then the permittee/co-permittee shall modify the Remedial Action and apply for a modification of the Ground Water Remedial Action Permit as necessary pursuant to N.J.A.C. 7:26C-7.8(d)2.

4) Is the ground water plume reaching the sentinel wells? .....  Yes  No

If "Yes," then the permittee/co-permittee shall complete additional delineation of the ground water contamination and modify the Remedial Action and apply for a modification of the Ground Water Remedial Action Permit as necessary pursuant to N.J.A.C. 7:26C-7.8(d)2.

5) Has all soil contamination in the unsaturated zone been remediated to the applicable numeric Soil Remediation Standard for all area(s) of concern associated with this CEA?  Yes  No  N/A

6) Has all free and/or residual product in the unsaturated and saturated zones, as determined pursuant to N.J.A.C. 7:26E-5.1(e), been treated or removed for all area(s) of concern associated with this CEA?  Yes  No  N/A

b.  Active Remediation

Provide the type of remediation: Biosparge system

1) Has ground water sampling been conducted at the site since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveness/Biennial Certification Form, whichever is more recent? .....  Yes  No

If "Yes", Attach a summary of the ground water sampling results to this form, including all historical ground water sampling data for the site.

2) Do the results of the ground water sampling demonstrate that contaminant concentrations have decreased to or below the applicable Ground Water Quality Standards for two consecutive sampling events accounting for seasonal fluctuation? .....  Yes  No  N/A

If "Yes", then submit a Ground Water Remedial Action Permit Application for a termination or a request for a CEA/WRA lift for sites that do not currently have a Ground Water Remedial Action Permit and skip the rest of this section.

3) Do the results of the ground water sampling indicate that there is a decreasing trend of contaminant concentrations in the ground water? .....  Yes  No  
If "No", is the ground water plume considered stable? .....  Yes  No

If "No," then the permittee/co-permittee shall modify the Remedial Action and apply for a modification of the Ground Water Remedial Action Permit as necessary pursuant to N.J.A.C. 7:26C-7.8(d)2.

4) Is the ground water plume reaching the sentinel wells? .....  Yes  No

If "Yes," then the permittee/co-permittee shall complete additional delineation of the ground water contamination and modify the Remedial Action and apply for a modification of the Ground Water Remedial Action Permit as necessary pursuant to N.J.A.C. 7:26C-7.8(d)2.

5) Is the ground water plume migrating horizontally or vertically into an uncontaminated aquifer zone below and adjacent to the contaminant plume? .....  Yes  No

6) Is the ground water remedial action performing as designed? .....  Yes  No  
If "No", provide an explanation:

7) Has the active ground water treatment system been shutdown for longer than 24-hours since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveness/Biennial Certification Form, whichever is more recent? .....  Yes  No  N/A

If "Yes", provide an explanation for the shutdown, including the duration of the shutdown and whether or not the shutdown rendered the Remedial Action not protective of public health, safety and of the environment:

See documentation provided in section 5.0 of the report attached to this Form

8) What is the expected duration of the active remediation? \_\_\_\_\_ (whole years)

2. Has a Technical Impracticability (TI) Determination been submitted? .....  Yes  No

If "Yes," please provide the date of the TI Determination: \_\_\_\_\_  
And attach a summary of the TI Determination and a 5-year evaluation if applicable.

3. Check the Ground Water Monitoring Schedule that is currently being applied for the site:

<input type="checkbox"/> Monthly	<input checked="" type="checkbox"/> Annual
<input type="checkbox"/> Quarterly	<input type="checkbox"/> Biennial
<input type="checkbox"/> Semi Annual	<input type="checkbox"/> Other: _____

4. CEA/WRA Specific Information:

Date CEA/WRA was Established: 05/06/2013 Expected Expiration Date of the CEA/WRA: 05/06/2024

Name of the Impacted Aquifer: Old Bridge Aquifer

Ground Water Classification: Class IIA Ground Water Flow Direction: southeast

Horizontal Extent of CEA/WRA: 90 (acres) Vertical Depth of the CEA/WRA: 130 (feet below ground surface)

Attach a scaled site map with the extent of the CEA/WRA on it.

5. Since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protective/Biennial Certification Form, whichever is more recent, did the Municipal Block and Lot number(s) of the CEA/WRA change? .....  Yes  No

If "Yes," attach a current Tax Map of the property and list the former and new Municipal Block and Lot numbers of the CEA/WRA below:

Former Municipal Block and Lot Number(s): See Section 3.2 of report attached to this Form

New Municipal Block and Lot Number(s): See Section 3.2 of report attached to this Form

6. Is this form being submitted pursuant to a Ground Water Remedial Action Permit? .....  Yes  No  
*If 'No', submit a completed Ground Water Remedial Action Permit Application with this form.*

7. Did you provide hard copies of this form to the municipal and county clerks for each municipality and county in which the site is located; the local, county and regional health department for each municipality and county in which the site is located; each current owner of the site; each current operator of the site; each current property owner within the footprint of the CEA/WRA and the Pinelands Commission, as applicable, and the Highlands Commission as applicable? .....  Yes  No

8. Did you provide to NJDEP copies of this form in paper and electronically on a CD (in Adobe PDF format)? .....  Yes  No

9. Have monitoring wells associated with the CEA/WRA been damaged, vandalized, repaired, replaced, or decommissioned? .....  Yes  No  
  
If "Yes," attach a description of what occurred and, if applicable, a copy of the Well Abandonment Report for each well that has been damaged, vandalized, repaired, replaced, or decommissioned, and the construction specifications for each new/replacement well.  
  
Attach the maintenance and evaluation logs for all the monitoring wells associated with the CEA/WRA.

10. Have additional monitoring wells been installed since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protective/Biennial Certification Form, whichever is more recent? .....  Yes  No  
  
If "Yes", attach the construction specifications for each new well.

11. Has the CEA/WRA been revised for any reason that did not require conducting additional remediation? .....  Yes  No  
  
If "Yes," attach a new CEA/WRA Fact Sheet form with all Exhibits and indicate which major CEA component(s) have been revised:

Contaminant List  Boundaries  Projected Term of CEA/WRA

12. Have you evaluated the Ground Water Quality Standards and other regulations and guidance relevant to the CEA/WRA and any resulting vapor intrusion risk, that have been modified subsequent to the establishment of the CEA/WRA or the last submittal of the Ground Water Remedial Action Protectiveiveness/Biennial Certification Form and report, whichever is more recent? .....  Yes  No
13. Has the CEA/WRA been accurately mapped on NJ-GeoWeb? .....  Yes  No  
*If 'No', then submit a GIS compatible map of the CEA/WRA to [srpgis\\_cea@dep.state.nj.us](mailto:srpgis_cea@dep.state.nj.us).*

## SECTION H. LAND USE, CHANGES, AND DISTURBANCES

### 1. Site Use(s) at the time the CEA/WRA was established (*check all that apply*)

- |  |  |   |                                       |
|--|--|---|---------------------------------------|
| <input type="checkbox"/> Industrial            | <input type="checkbox"/> Child Care Facility | <input type="checkbox"/> Park or Recreational Use | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Residential           | <input type="checkbox"/> Hospital            | <input type="checkbox"/> Vacant                   |                                       |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Landfill | <input type="checkbox"/> Government Facility      |                                       |
| <input type="checkbox"/> School                | <input type="checkbox"/> Agricultural        | <input type="checkbox"/> Road/Right of Way        |                                       |

### 2. Current Site Use(s) (*check all that apply*)

- |  |  |   |                                       |
|--|--|---|---------------------------------------|
| <input type="checkbox"/> Industrial            | <input type="checkbox"/> Child Care Facility | <input type="checkbox"/> Park or Recreational Use | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Residential           | <input type="checkbox"/> Hospital            | <input type="checkbox"/> Vacant                   |                                       |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Landfill | <input type="checkbox"/> Government Facility      |                                       |
| <input type="checkbox"/> School                | <input type="checkbox"/> Agricultural        | <input type="checkbox"/> Road/Right of Way        |                                       |

### 3. Intended Future Site Use(s), If Known (*check all that apply*)

- |  |  |   |  |
|--|--|---|--|
| <input type="checkbox"/> Industrial            | <input type="checkbox"/> Child Care Facility | <input type="checkbox"/> Park or Recreational Use | <input type="checkbox"/> Future site use unknown |
| <input type="checkbox"/> Residential           | <input type="checkbox"/> Hospital            | <input type="checkbox"/> Vacant                   | <input type="checkbox"/> Other: _____            |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Landfill | <input type="checkbox"/> Government Facility      |  |
| <input type="checkbox"/> School                | <input type="checkbox"/> Agricultural        | <input type="checkbox"/> Road/Right of Way        |  |

### 4. Describe the current site operations and the status of any planned future land use(s) for the site, particularly if the proposed use is residential, school, or licensed child care facility:

The site is used as a temporary staging/storage area for soil and recycled concrete/asphalt

### 5. Since time the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveiveness/Biennial Certification Form, whichever is more recent, has the site use changed to residential, school, or licensed child care facility? ..... Yes No

If "Yes,": indicate the type of remedy used:

- Presumptive Remedy pursuant to the NJDEP's Presumptive Remedies for Soil Contamination at Schools, Child Care Centers, and Residences. [N.J.A.C. 7:26E- 5.3]

Briefly describe presumptive remedy:

- Alternate Remedy pre-approved by the NJDEP. Attach a copy of the NJDEP's pre-approval letter.  
 Unrestricted Use Remedy

### 6. Have disturbances of the land, such as installation of a detention basin, taken place? ..... Yes No

If "Yes":

a) Indicate the type of and the approximate date of the disturbance(s): \_\_\_\_\_

b) Did these disturbances result in a contaminated discharge to surface water that rendered the Remedial Action not protective of public health, safety and of the environment? .....  Yes  No

- c) Did these disturbances intercept the water table within the CEA/WRA area in such a way that ground water sampling was needed to determine if the ground water contaminant plume could discharge to surface water? .....  Yes  No
- If "Yes," does the ground water meet the more stringent of either the New Jersey Surface Water Quality Criteria, N.J.A.C. 7:9B or the Federal Surface Water Quality Criteria, CFR Part 131? .....  Yes  No

## SECTION I. CURRENT OR PLANNED WATER USE WITHIN THE WELL SEARCH AREA

- 1. Water use within the CEA/WRA when CEA/WRA was established (check all that apply)**
- Potable
  - Well Head Protection Area
    - Tier 1
    - Tier 2
    - Tier 3
  - Irrigation
  - Industrial
  - Geothermal
- 2. Current water use within the CEA/WRA Boundaries (check all that apply)**
- Potable
  - Well Head Protection Area
    - Tier 1
    - Tier 2
    - Tier 3
  - Irrigation
  - Industrial
  - Geothermal
3. Attach the results of the required updated well search to this form, including a scaled map.
4. Since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveness/Biennial Certification Form, whichever is more recent, has the water use changed within the well search area? .....  Yes  No

If "Yes," briefly describe:

5. Have any changes in water use altered the areal extent and or the duration of the CEA/WRA? .....  Yes  No
6. Since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveness/Biennial Certification Form, whichever is more recent, have any of the following wells been installed within one mile up-gradient, side-gradient, and down-gradient of the CEA/WRA? .....  Yes  No
- If "Yes," check all that apply:
- |                                     |                                     |   |  |
|-------------------------------------|-------------------------------------|---|--|
| <input type="checkbox"/> Potable    | <input type="checkbox"/> Industrial | <input type="checkbox"/> Community Supply Well                | <input checked="" type="checkbox"/> Irrigation |
| <input type="checkbox"/> Geothermal | <input type="checkbox"/> Production | <input checked="" type="checkbox"/> Non-Community Supply Well |  |
- If you checked one of the above, was it necessary to sample the well pursuant to N.J.A.C. 7:26 E-1.14? .....  Yes  No
7. Since the CEA/WRA was established or the last submittal of the Ground Water Remedial Action Protectiveness/Biennial Certification Form, whichever is more recent, are there any planned changes in water use for the aquifers in which the CEA/WRA is located? .....  Yes  No

Check all the sources that were evaluated to determine planned changes in water use:

- Municipal Master Plans
  - Zoning Plans
  - Local water purveyor plans and planning data pertaining to the existence of water lines and proposed future installation of water lines, wells or well fields
  - Local and County ordinances restricting installation of potable wells
  - Local and County boards of health
  - Local planning officials
8. Did or will the actual or planned changes reported in items 1-7 above render the Remedial Action that includes the CEA/WRA not protective of public health, safety and of the environment? .....  Yes  No
- If "Yes," then the permittee/co-permittee shall modify the Remedial Action and apply for a modification of the Ground Water Remedial Action Permit as necessary pursuant to N.J.A.C. 7:26C-7.8(d)2.

## SECTION J. VAPOR INTRUSION

1. Are volatile organic compounds included in the CEA/WRA? .....  Yes  No  
*If "Yes," complete this section, otherwise proceed to the next section*

2. Based on the most recent data available, do any of the contaminants in the CEA/WRA exceed the current ground water screening levels in the NJDEP's Vapor Intrusion Technical Guidance Document? .....  Yes  No

3. Was it necessary to re-evaluate the fate and transport of the ground water contaminant plume or the contaminants in the CEA/WRA with regard to vapor intrusion? .....  Yes  No

4. Were there any changes in property use that increased the risk of vapor intrusion? .....  Yes  No

5. Did you investigate the vapor intrusion pathway? .....  Yes  No

If "Yes":

a) Attach a scaled site map indicating the location of all structures investigated for vapor intrusion.

b) Did the investigation indicate that an Immediate Environmental Concern (IEC) condition exists? .....  Yes  No

If "Yes," provide the date of IEC Contaminant Source Control Report: \_\_\_\_\_

c) Did the investigation indicate that a Vapor Concern (VC) condition exists? .....  Yes  No

If "Yes," provide the date of VC Mitigation Response Action Report: \_\_\_\_\_

d) Was public notification conducted to notify all applicable parties of the increased vapor intrusion risk? .....  Yes  No  N/A

6. Provide a written explanation of either how the vapor intrusion pathway was investigated *or* the reasons for not evaluating the vapor intrusion pathway.

The requirements for a vapor intrusion investigation were limited to the Site and immediately adjacent area and did not extend into the area of the off site plume. Vapor intrusion investigation included indoor air sampling of the on-site JISCO office building.

7. Have any vapor intrusion engineering controls/mitigation systems been installed as a result of this ground water contamination? .....  Yes  No

If "Yes," indicate the type of engineering control that was implemented: (*check all that apply*)

- Subsurface Depressurization System
- Subsurface Ventilation System
- Soil Vapor Extraction System
- HVAC Positive Pressure
- Other (specify): \_\_\_\_\_

Attach the Operation, Maintenance, and Monitoring (OMM) Plan for the vapor intrusion engineering control(s)/mitigation system(s) both in paper and electronically (in "MS Word" file format). The OMM Plan should clearly identify the building(s) and/or structure(s) and vapor intrusion engineering control(s)/mitigation system(s) that are in place (e.g., active or passive), including the address and block and lot of each impacted property.

## SECTION K. FINANCIAL ASSURANCE

1. Does the Remedial Action include an engineering control? .....  Yes  No

If "No," proceed to the next section.

2. Are **both** the "Person Responsible for Conducting the Remediation" and the current property owner exempt from establishing Financial Assurance pursuant to N.J.A.C. 7:26C-7.10(c)? .....  Yes  No

If "Yes," check the exemptions that apply, and then proceed to the next section.

Person Responsible for Conducting the Remediation – <u>Co-Permittee</u>	Current Owner of the Site – <u>Co-Permittee</u>
--	--

- |                                |   |
|--------------------------------|---|
| <input type="checkbox"/> ..... | <input type="checkbox"/> Government entity  |
| <input type="checkbox"/> ..... | <input type="checkbox"/> A person not liable pursuant to the Spill Act that purchased contaminated property before May 7, 2009        |
| <input type="checkbox"/> ..... | <input type="checkbox"/> A person that conducted remediation at their primary or secondary residence                                  |
| <input type="checkbox"/> ..... | <input type="checkbox"/> Owner or operator of a child care center   |
| <input type="checkbox"/> ..... | <input type="checkbox"/> Public school or private school  |
| <input type="checkbox"/> ..... | <input type="checkbox"/> Owner or operator of a small business responsible for conducting remediation at the location of the business |

*If "No," - If either entity is not exempt, then establishment of the full amount of the Financial Assurance is required by the non-exempt permittee(s) - attach a completed Remediation Cost Review and RFS/FA Form.*

3. Is the current owner of the site either a homeowner association or a condominium association pursuant to the New Jersey Common Interest Association Act, N.J.S.A. 46:8A-1 et seq.? .....  Yes  No

*If "Yes," and the association is identified in Section D of this form, attach a copy of the association's annual budget that includes funds for the operation, maintenance, and monitoring of the engineering control(s) at the site.*

**SECTION L. PERSON RESPONSIBLE FOR MONITORING THE PROTECTIVENESS OF THE REMEDIAL ACTION INFORMATION AND CERTIFICATION**

Full Legal Name of the Person Responsible for monitoring the Protectiveness of the Remediation: demaximis Inc.

Representative First Name: Chris Representative Last Name: Young

Title: Technical Agent on Behalf of the JIS Performing Parties Group

Phone Number: (610) 435-1151 Ext: \_\_\_\_\_ Fax: \_\_\_\_\_

Mailing Address: 1550 Pond road; Suite 120

Municipality: Allentown State: PA Zip Code: 18104

Email Address: cyoung@demaximis.com

Relationship to the Site (*check all that apply*)

- I am the current Owner
- I am the current Operator
- I am the current Lessee
- I am the Person who conducted the remediation
- I am the Permittee
- I am the Co-Permittee

This certification shall be signed by the person responsible for submitting the Ground Water Remedial Action Protectiveness/Biennial Certification Form in accordance with the Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

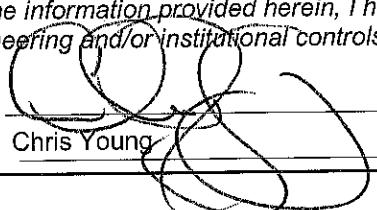
*I also understand that engineering and institutional controls must be evaluated and maintained to ensure they remain protective of public health and safety and the environment.*

*Based upon the information provided herein, I hereby certify that the remedial action(s) implemented at the site that includes engineering and/or institutional controls remains protective of public health and safety and the environment.*

Date:

5/7/2015

Signature:



Name/Title: Chris Young

**SECTION M. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**

LSRP ID Number: \_\_\_\_\_

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Ext: \_\_\_\_\_

Fax: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Municipality: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**

- directly oversaw and supervised all of the referenced remediation, and/or  
 personally reviewed and accepted all of the referenced remediation presented herein.

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: \_\_\_\_\_ Date: \_\_\_\_\_

LSRP Name/Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

**No Changes to Contact Information Since Last Submission** 

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
Site Remediation Program  
NJ Department of Environmental Protection  
401-05H  
PO Box 420  
Trenton, NJ 08625-0420

**SECTION M. SUBSURFACE EVALUATOR INFORMATION AND STATEMENT**

I certify under penalty of law that the work was performed under my oversight and I have reviewed the report and all attached documents, and the submitted information is true, accurate and complete in accordance with the requirements of N.J.A.C. 7:14B and N.J.A.C. 7:26E. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information including fines and/or imprisonment.

Name: \_\_\_\_\_ UST Cert. No.: \_\_\_\_\_  
Firm: \_\_\_\_\_ Firm's UST Cert. Number: \_\_\_\_\_  
Firm Address: \_\_\_\_\_  
Municipality: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Ext: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email Address: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

No Changes To Contact Information Since Last Submission

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
Site Remediation Program  
NJ Department of Environmental Protection  
401-05H  
PO Box 420  
Trenton, NJ 08625-0420

## Appendix B

### **Summary Table Historical Groundwater Analytical Results**

**(On CD)**

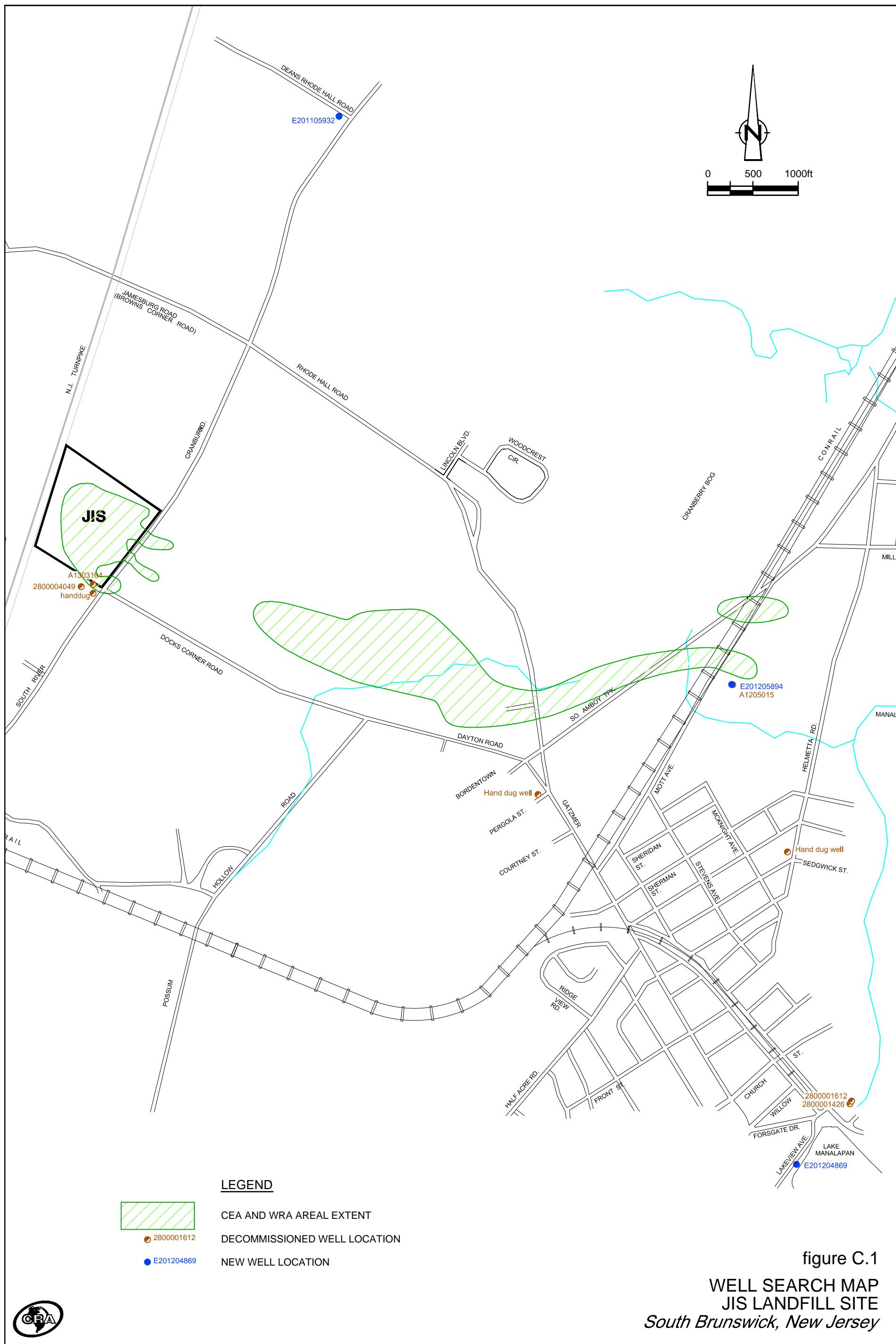
## Appendix C

### Updated Well Search Records

SITE NAME	JIS Landfill	Enter no information beyond column B
SITE STREET ADDRESS	999 Cranbury South River Road	
SITE COUNTY (select)	Middlesex	
SITE MUNICIPALITY (select)	Cranbury Twp	
PROGRAM INTEREST (PI) ID # :	010911	
SOURCE COORDINATE X	503755	
SOURCE COORDINATE Y	555520	
GROUNDWATER FLOW DIRECTION USED (if any)	E	
WERE APPLICABLE WELL TYPES FOUND? (Yes/No)	Yes	
IS THIS SUBMISSION AN UPDATE? (Yes/No)	Yes	
AUTHOR (name of company)	Conestoga-Rovers & Associates	
AUTHOR STREET ADDRESS (include town and zip code)	135 Raritan Center Parkway, Edison, NJ, 08837	
LSRP LICENSE NUMBER OVERSEEING WORK	575490	
LSRP NAME OVERSEEING WORK	Richard Snyder	
PROFESSIONAL WHO PREPARED SUBMISSION	James Carey	
EMAIL CONTACT	<a href="mailto:icarey@craworld.com">icarey@craworld.com</a>	
PHONE CONTACT	732-225-0308	

## WELL SEARCH INFORMATION

Download_Documen	Permit_Number	Well_Use	Potentially_Potable	Document	Date (permitted/drille	Physical_Address	County	Municipality	Block	Lot	Location_Method	Easting_X	Northing_Y	Distance_(feet)	Depth (feet)	Capacity (gal/min)
	E201205894	Irrigation Replacement	Yes	Record	5/1/2012	Mott Ave	Middlesex	Monroe Twp	95	2	GPS	509394	556299	920	85	
	E201205894	Irrigation Replacement	Yes	Permit	4/19/2012	Mott Ave	Middlesex	Monroe Twp	95	2	Digital Image	509378	556307	936	100	10
	E201204869	Non-Public	Yes	Record	4/24/2012	Lake View Drive	Middlesex	Jamesburg Boro	79	1.02	GPS	509878	551229	5106	80	35
	E201204869	Non-Public	Yes	Permit	4/3/2012	Lake View Drive	Middlesex	Jamesburg Boro	79	1.02	GPS	509883	551188	5146	100	20
	E201105932	Irrigation	Yes	Permit	3/8/1900	Cranbury South River Rd	Middlesex	South Brunswick Twp	18.01	42.01	Digital Image	504831	562787	4700	200	25
	E201105932	Irrigation	Yes	Record	5/5/2011	Cranbury South River Rd	Middlesex	South Brunswick Twp	18.01	42.01	GPS	504430	562945	4700	165	25
	Hand dug well	Domestic	Yes	Decommissioning	9/18/2014	7 Pergola Street	Middlesex	Jamesburg Boro	80	5	GPS	507026	555308	3439		
	Hand dug well	Domestic	Yes	Decommissioning	7/16/2013	42 Helmetta Road	Middlesex	Jamesburg Boro	52	8.01	Digital Image	509850	554584	1793		
	A1205015	Irrigation	Yes	Decommissioning	5/14/2012	Mott Ave	Middlesex	Monroe Twp	95	2	GPS	509391	556303	923		
REDACTED	2800001612	Public Community	Yes	Decommissioning	11/6/2013	REDACTED	Middlesex	Jamesburg Boro	27	REDACTED	Prop Loc - Dig Image	0	0	3995	129	0
REDACTED	2800001426	Public Community	Yes	Decommissioning	11/5/2013	REDACTED	Middlesex	Jamesburg Boro	27	REDACTED	Prop Loc - Dig Image	0	0	3995	121	300
	handdug	Domestic	Yes	Decommissioning	4/3/2013	1015 Cranbury South River Rd.	Middlesex	South Brunswick Twp	17	10	GPS	502118	557526	2589		
	A1303104	Domestic	Yes	Decommissioning	4/3/2013	1015 Cranbury South River Rd.	Middlesex	South Brunswick Twp	17	10	GPS	502118	557625	2667		
	A1205015	Irrigation	Yes	Decommissioning	5/14/2012	Mott Ave	Middlesex	Monroe Twp	95	2	GPS	509391	556303	5690		
	2800004049	Irrigation	Yes	Decommissioning	4/3/2013	1015 Cranbury South River Rd.	Middlesex	South Brunswick Twp	17.01	10.01	GPS	501987	557599	2729	120	

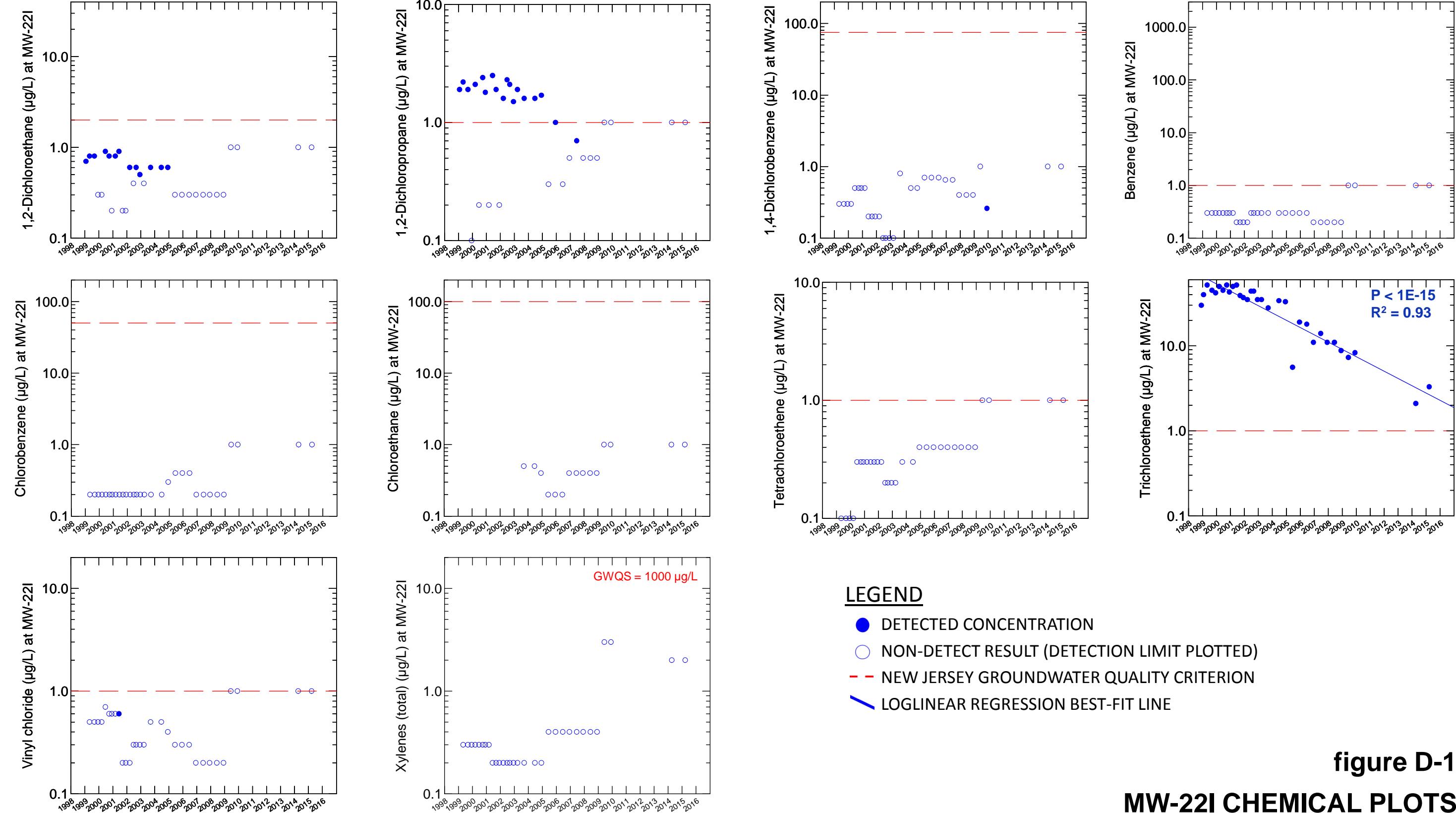


## Appendix D

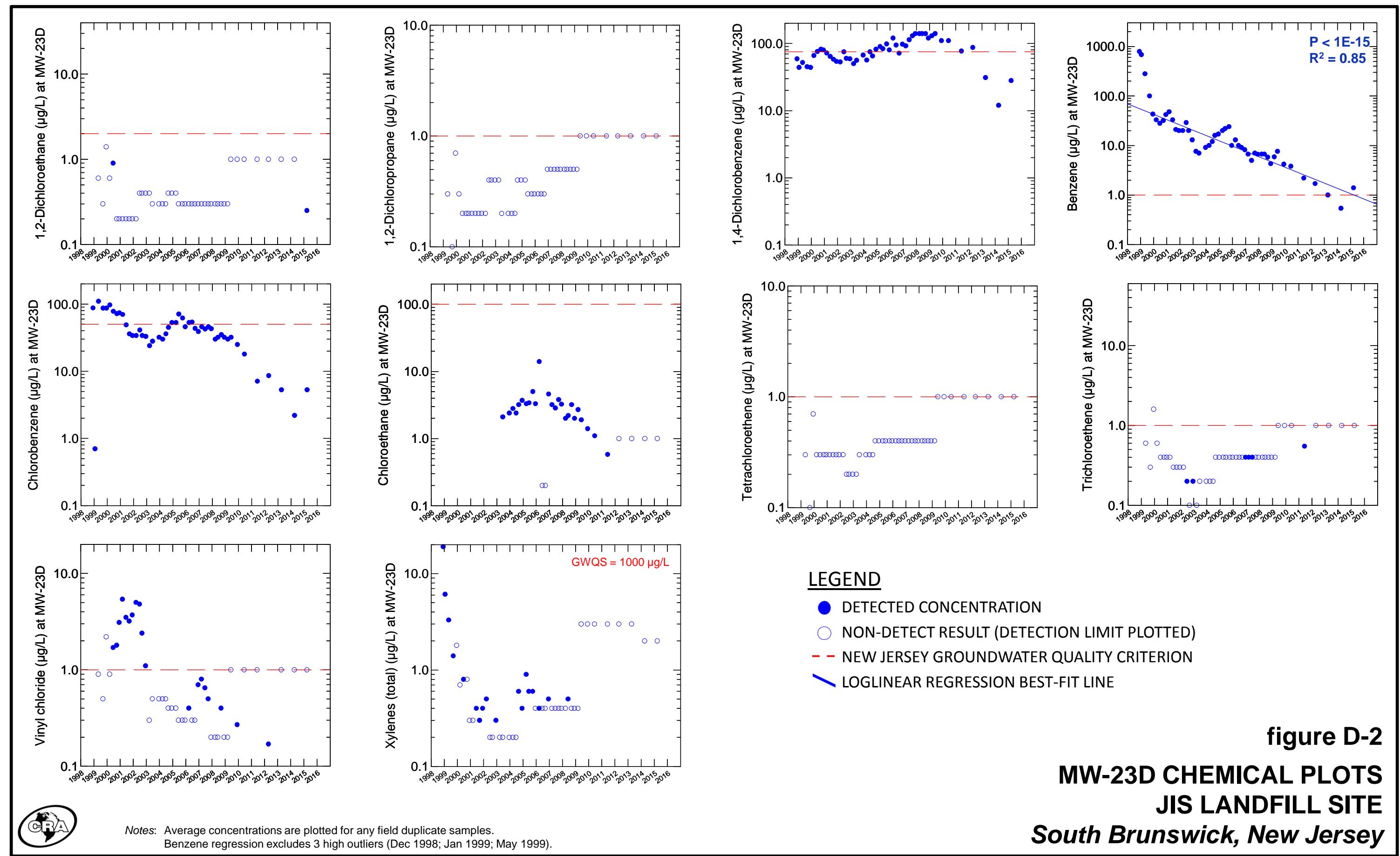
### Chemical Plots for Longevity Calculation

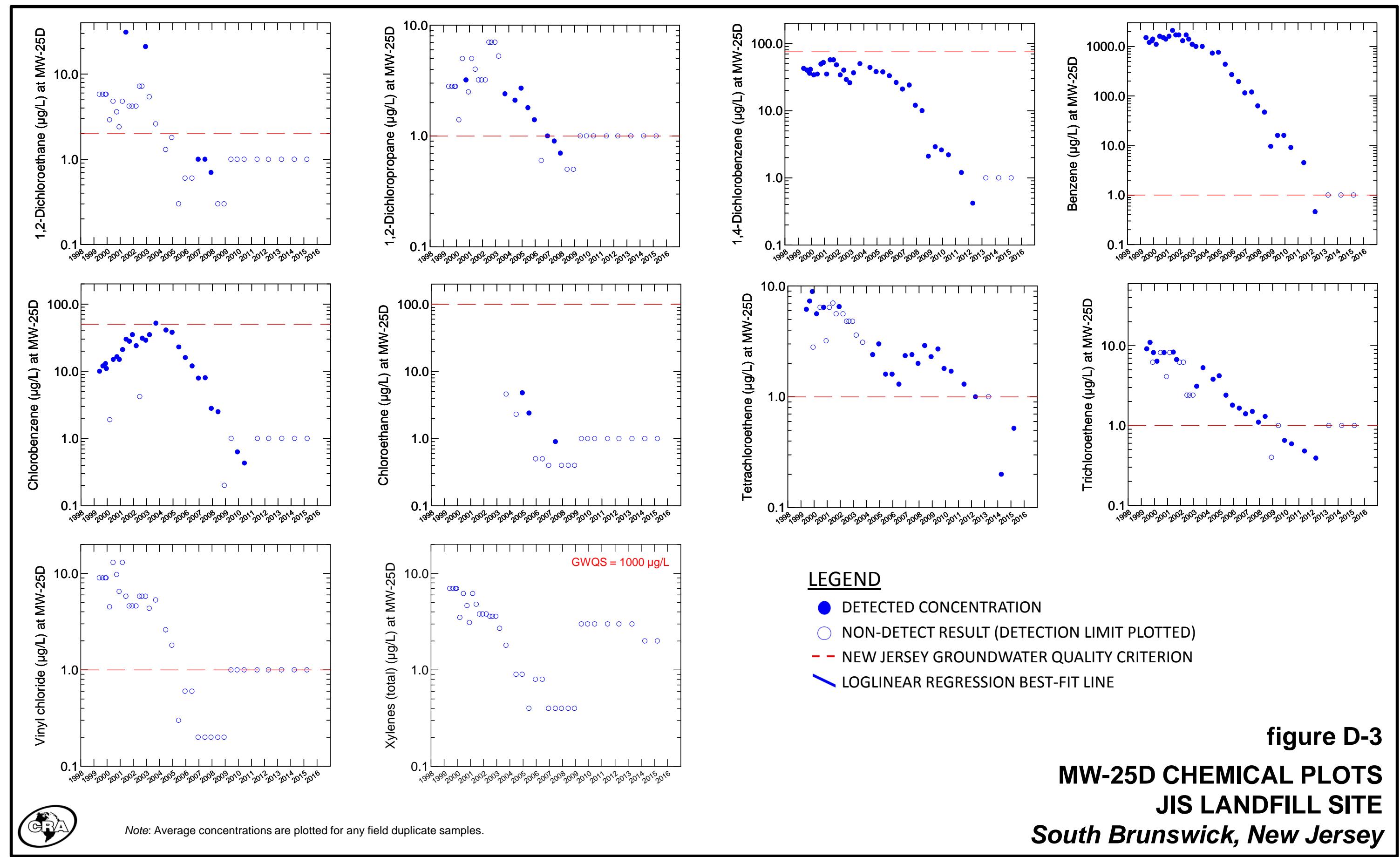


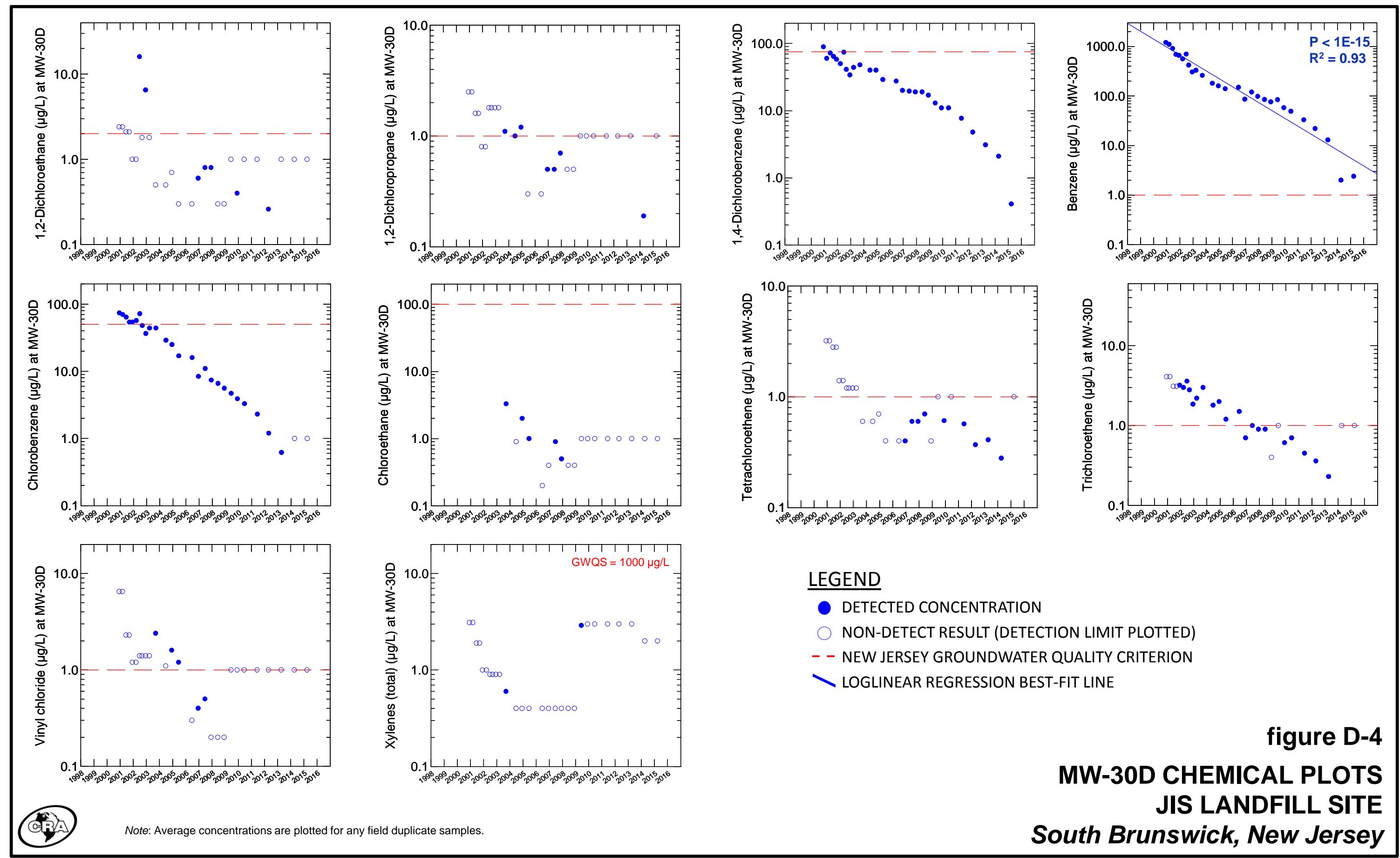
Notes: Average concentrations are plotted for any field duplicate samples.  
Trichloroethane regression excludes 2 low outliers (Dec 1998; Jun 2005).

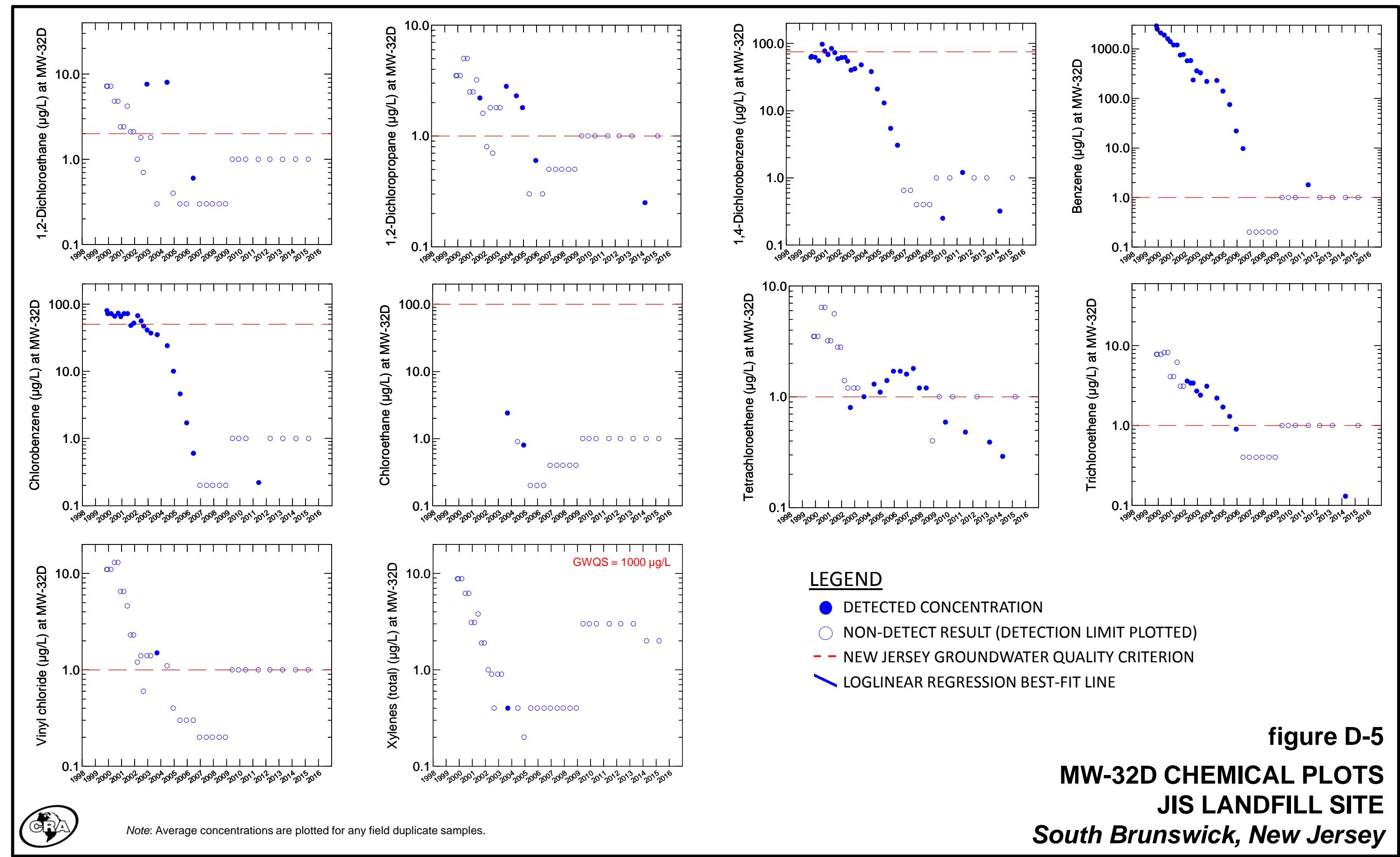


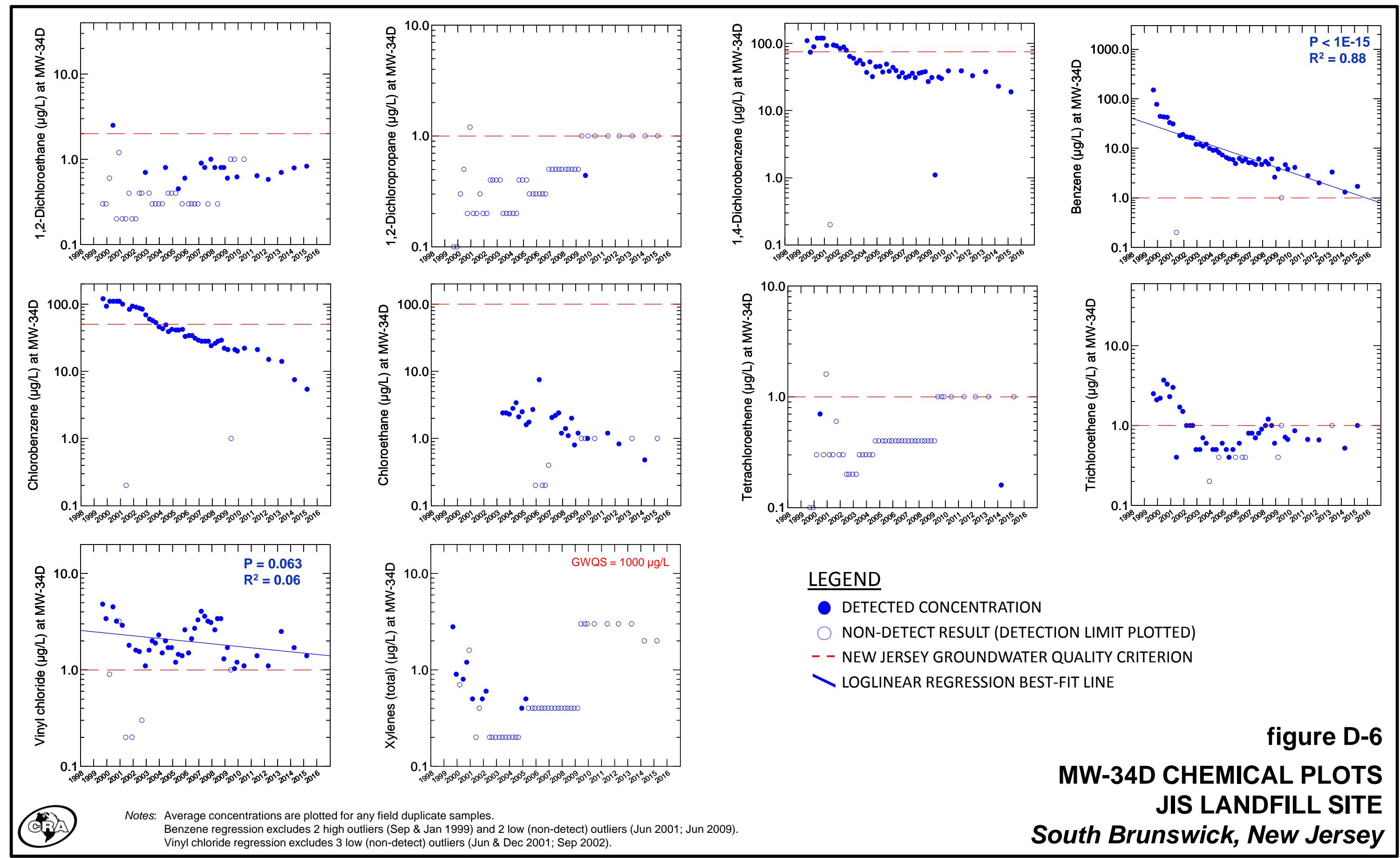
**figure D-1**  
**MW-22I CHEMICAL PLOTS**  
**JIS LANDFILL SITE**  
**South Brunswick, New Jersey**





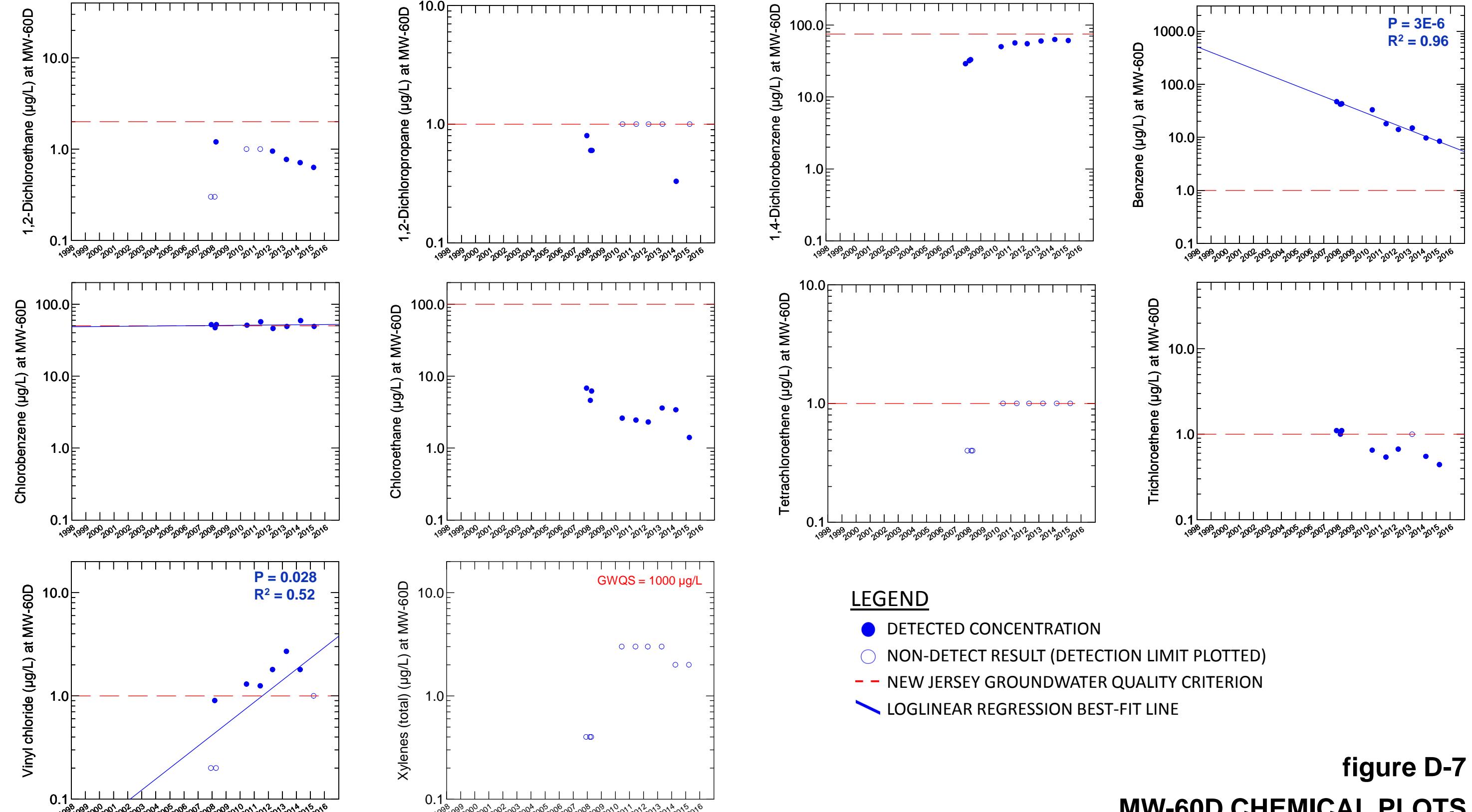








Note: Average concentrations are plotted for any field duplicate samples.



**figure D-7**

**MW-60D CHEMICAL PLOTS  
JIS LANDFILL SITE  
South Brunswick, New Jersey**

## Appendix E

### Draft Public Notices



**CONESTOGA-ROVERS  
& ASSOCIATES**

135 Raritan Center Parkway, Suite 5  
Edison, New Jersey 08837-3625  
Telephone: (732) 225-0308 Fax: (732) 225-0193  
[www.CRAworld.com](http://www.CRAworld.com)

May 4, 2015

Reference No. 014737

Owner Name

Owner Address

Dear: Resident/Owner

Re: Groundwater Classification Exception Area Notification

Property Location: Property Address, Block: Block, Lot: Lot

I write on behalf of the JIS Performing Parties Group, a group of companies who have been engaged in the remediation of the JIS Landfill Superfund Site at Cranbury South River Road (near Docks Corner Road). This letter is similar to a letter you received from me approximately two years ago.

The Group is required to notify you that (a portion of) Block <BlockNumber>, Lot <LotNumber> is proposed for continued inclusion in what is called a groundwater Classification Exception Area (CEA, for short) that is being established by the New Jersey Department of Environmental Protection. This is a common practice when a site is subject to ongoing environmental cleanup and, in this instance; it is required as a result of the ongoing cleanup at the JIS site.

Notice of a CEA is intended to let neighboring property owners know the locations at which contaminants that exceed New Jersey State quality standards are present in groundwater. That is the case here. Please note that the groundwater with contaminants exceeding State water quality standards is located well beneath your property and is not the source of your drinking water. Although it is the purpose of the CEA to notify you of these conditions, the risks associated with these conditions have been addressed by the State of New Jersey, which previously required that a municipal source of drinking water be provided to you and all residents within the CEA limits.

The JIS Landfill Superfund Site is undergoing environmental cleanup under the supervision of the United States Environmental Protection Agency and the New Jersey Department of Environmental Protection. Plans describing the nature of the contamination and the remediation program that has been implemented to address the contamination are available to the public and can be accessed in the South Brunswick Public Library in Monmouth Junction or through the New Jersey Department of Environmental Protection.

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May 4, 2015

Reference No. 014737

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The Classification Exception Area that the State has established will remain in place until the groundwater standards set by the State of New Jersey are achieved. This notice is being sent to all property owners whose property is within the CEA limits as well as the appropriate municipal, county and state offices. Future updates and notification regarding the CEA will be provided to all parties on a biennial basis in accordance with New Jersey Department of Environmental Protection regulations.

Should you have any questions concerning this notification, please contact Ashley Similo with the United States Environmental Protection Agency at (212) 637-4263 or Erica Bergman with the New Jersey Department of Environmental Protection at (609) 292-7406.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES  
ON BEHALF OF THE JIS PERFORMING PARTIES

James Kay  
KDS/mg/FL-7

cc:     Erica Bergman - New Jersey Department of Environmental Protection  
          Ashley Similo - United States Environmental Protection Agency  
          Rich Snyder  
          Chris Young  
          Irv Freilich



**CONESTOGA-ROVERS  
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May 4, 2015

Reference No. 014737

Municipality of South Brunswick Clerk's Office  
540 Ridge Road, PO Box 190  
Monmouth Junction, NJ 08852

Municipality of South Brunswick Health Department  
540 Ridge Road  
Monmouth Junction, NJ 08852

Municipality of Monroe Clerk's Office  
Municipality of Monroe Health Department  
Municipal Building  
1 Municipal Plaza  
Monroe, NJ 08831

Municipality of Jamesburg Clerk's Office  
131 Perrineville Road  
Jamesburg Borough Hall  
Jamesburg, NJ 08831

Municipality of Jamesburg Health Department  
John F. Kennedy Square  
New Brunswick, NJ 08901

Middlesex County Clerk's Office  
23 N Main St # A  
Cranbury Township, NJ 08512-3257

Middlesex County Health Department  
75 Bayard Street  
New Brunswick, NJ 08901

Middlesex County Planning Board  
167 Main Street  
Sayreville, NJ 08872-1149

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May 4, 2015

Reference No. 014737

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Dear Sir/Madam:

Re: Groundwater Classification Exception Area Notification  
JIS Landfill Superfund Site

I write on behalf of the JIS Performing Parties Group, a group of companies who have been engaged in the remediation of the JIS Landfill Superfund Site at Cranbury South River Road (near Docks Corner Road). This letter is similar to a letter you received from me approximately two years ago.

The group is required to notify you that properties within your municipality are proposed for continued inclusion in what is called a groundwater Classification Exception Area (CEA, for short) that is being established by the New Jersey Department of Environmental Protection. A list of the properties planned for inclusion in the CEA is provided in the attached Table 1. A map showing the locations of the properties planned for inclusion is provided in attached Figure 1.

The JIS Landfill Superfund Site is undergoing environmental cleanup under the supervision of the United States Environmental Protection Agency and the New Jersey Department of Environmental Protection. Plans describing the nature of the contamination and the remediation program that has been implemented to address the contamination are available to the public and can be accessed at the South Brunswick Public Library in Monmouth Junction or through the New Jersey Department of Environmental Protection.

The Classification Exception Area that the State has established will remain in place until the groundwater standards set by the State of New Jersey are achieved. Separate notice has been sent to all property owners whose property is within the CEA limits whereas this notice is being sent to all appropriate municipal and county offices. Future updates and notifications regarding the CEA will be provided to all parties on a biennial basis in accordance with New Jersey Department of Environmental Protection regulations.



May 4, 2015

Reference No. 014737

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Should you have any questions concerning this notification, please contact Ashley Similo with the United States Environmental Protection Agency at (212) 637-4263 or Erica Bergman with the New Jersey Department of Environmental Protection at (609) 292-7406.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES  
ON BEHALF OF THE JIS PERFORMING PARTIES

James Kay

KDS/mg/FL-8  
Encl.

cc:     Erica Bergman - New Jersey Department of Environmental Protection  
          Ashley Similo - United States Environmental Protection Agency  
          Rich Snyder  
          Chris Young  
          Irv Freilich